

| Curriculum Map |                                                                                                                                     |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                            |                                                                                              |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Year 11        |                                                                                                                                     |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                            |                                                                                              |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Half term      | Unit title with hyperlink to scheme of work                                                                                         | Unit summary                                                                                                                                                                                                                                                                   | Skills & content covered                                                                                                                                                                                                   | Skills & content revisited                                                                   | Summary of formative marking, feedback and student response | Summative assessment schedule, including assessment criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Autumn 1       | <a href="#">NFA - Identifying &amp; investigating design opportunities/ Developing a Brief &amp; Specification/ Initial designs</a> | Research: complete client interview, product analysis. Write the Design Brief & Specification. Design section: students refine their initial design work (pencil sketches &/or isometric drawings for 3D products) Begin to develop logos and typography for product branding. | research/investigation techniques (also relevant for exam), Developing briefs & specifications. Sketching/drawing techniques                                                                                               | Research techniques / Developing a brief and specification / Drawing techniques              | Progress recorded through use of tracker spreadsheet        | (Research section assessment criteria on Y10 Curriculum Map)<br><b>Design Brief &amp; Specification (10 Marks):</b> • thoroughly considered a range of problems/opportunities in detail before deciding upon a final design brief. • demonstrated a very good understanding of the task ahead and the requirements which have to be met, to satisfy fully the needs, wants and interests of potential users. • written a comprehensive design brief, directly relevant to the context, based upon a thorough analysis of their research and investigation. • written a comprehensive, relevant specification, including a range of objective and measurable criteria, to direct and inform the design and manufacture of a prototype.<br>(Design Development assessment criteria below)                                                                                                                                                                                                        |
| Autumn 2       | <a href="#">NFA - generating and developing design ideas</a>                                                                        | Development: Develop a final design proposal based around a chosen initial design. Further research into materials and manufacture processes for the product to be carried out. Use a range of design strategies to convey intentions                                          | Refining design ideas into clear plans - orthographic & isometric drawing. Further research into materials. Modelling strategies such as: block modelling with styrofoam, creating packaging nets, laser cut structures    | Design strategies: isometric drawing / 2 pt perspective / orthographic drawing. Model making | Progress recorded through use of tracker spreadsheet        | <b>Design Development (30 Marks):</b> • considered a range of design strategies, techniques and approaches and applied an iterative design process to generate and communicate a range of initial ideas which fully reflect all requirements. • identified and considered social, moral and economic factors which are fully relevant to the context and potential user(s). • clear, effective, and detailed use of testing to evolve ideas and to refine their design decisions. • developed a proposal, including comprehensive and relevant details of materials, dimensions, finishes and production techniques, which clearly address all requirements of the design brief and specification. • demonstrated sophisticated use of skills/techniques to clearly communicate ideas and proposals to a third party.                                                                                                                                                                          |
| Spring 1       | <a href="#">NFA - Manufacturing a prototype</a>                                                                                     | Making: produce a plan of making, make a high quality prototype from the final design proposal, record stages with photographs                                                                                                                                                 | Realisation of developed design work through use of appropriate model techniques, including CA/CAM. Laser cutting, 3D printing. Developing surface Graphics and logos                                                      | CAD/CAM, Modelling, addition and wasting processes                                           | Progress recorded through use of tracker spreadsheet        | <b>Manufacturing a prototype (30 Marks):</b> • clearly communicated comprehensive and relevant details of a logical sequence and achievable timeline for the stages of production and testing of their final prototype. • worked with appropriate materials and components to complete all aspects of the manufacture of their prototype to a defined schedule. • used appropriate making skills and processes to produce a high-quality functioning prototype that fully meets all requirements of the design specification and is fit for purpose. • an excellent understanding of the working properties and performance characteristics of the specified materials and, where appropriate, demonstrated consideration of surface treatments/finishes. • selected and safely used specialist tools, appropriate techniques, processes, equipment and machinery with excellent accuracy and precision to enable the prototype to perform as intended and fully meet the user's requirements. |
| Spring 2       | <a href="#">NFA - Analysing &amp; evaluating design decisions &amp; prototypes</a>                                                  | Evaluation: Evaluation of Specification, 3rd Party Feedback including Client Feedback, Proposed Modifications (marks are also awarded for continued evaluation throughout the project, annotations and client feedback)                                                        | conducting analysis into final outcome using the following techniques: 3rd party interviews/questionnaires, Client interviews, Product analysis against specification points, identifying issues and areas for improvement | Evaluation techniques                                                                        | Progress recorded through use of tracker spreadsheet        | <b>Evaluation (20 Marks):</b> • undertaken a critical, objective analysis, evaluation and testing of their ideas and decisions whilst applying iterative design processes. • undertaken a critical and objective evaluation and testing of their final prototype, taking into account the views of potential users. • responded to feedback and clearly identified the potential for further development of their prototype, with detailed suggestions for how modifications could be made.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Summer 1       | <a href="#">Exam Practice</a>                                                                                                       | Revision on key topics, Practice exam questions                                                                                                                                                                                                                                | All theory/exam content to be reviewed. Development of revision resources: flash cards, mind maps, various memory retrieval strategies. Walking talking mocks, quiz questions                                              | All exam content                                                                             | walking, talking mocks. Peer assessment, quiz Qs            | Final GCSE Exam                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Summer 2       |                                                                                                                                     |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                            |                                                                                              |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |