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| **Y11 Autumn Term GCSE Design & Technology Resistant Materials Board: Edexcel** | | | |
| **Key Topics** | **Exam Dates** | **Controlled Assessment** | **What the student needs to do:** |
| Research and Investigation to inform design  - User Needs  - Product Analysis  - Materials  - Manufacture  - Specification  Generation of design ideas  - Generating a range of ideas  - Focus on 4 ideas  Evaluating ideas against a specification  HALF TERM  Developing ideas  - Sketching techniques  -Presenting information  - Modelling  - CAD  Working Drawings  - Orthographic Projection  - Cutting list |  | Design and Make Project:  - Research and Investigation **(15 marks)**  - Generating Ideas  **(16 marks)**  Review of ideas  **(4 marks)**  HALF TERM  - Developing and modelling  **(9 marks)**  - Technical Drawing and cutting list  **(6 marks)** | Produce research into their design brief, looking at existing products, talking to potential users about their needs and collecting other relevant data.  All research must be relevant and lead to a detailed specification.  Generate at least 8 **different** ideas that meet their specification. Labelled with details of materials and processes. Use a range of drawing techniques.  Objectively evaluate all of their ideas against each point in their specification.  Taking the best idea, develop a final proposal that is different and improved on their original idea.  Draw up final proposal in detail, including all materials, dimensions, joints and finishes  **Produce a Cutting List ready to buy materials over Christmas Break** |
| **Y11 Spring Term** | | | |
| **Key Topics** | **Exam Dates** | **Controlled Assessment** | **What the student needs to do:** |
| Planning out a manufacture process  Manufacture Process  - Working to a production plan  - Independently selecting and using hand and power tools  -Working to time limitations  - Importance of a quality finish  Testing the success of a product  Evaluating against a specification |  | Design and Make Project  - Production Plan  **(6 marks)**  - 16 hours of Manufacture  **(38 marks)**  - Testing and Evaluating  **(6 marks)** | Produce lesson by lesson plan of their manufacture, including time, tools, health and safety and quality control checks.  Following their production plan they have 16 hours to make their product. Selecting and using tools independently and with accuracy.  Test and evaluate their product against each of the points in their specification. |
| **Y11 Summer Term** | | | |
| **Key Topics** | **Exam Dates** | **Controlled Assessment** | **What the student needs to do:** |
| Revision | Exam in June |  |  |