



Curriculum Map - Design & Technology

Subject: D&T Product Design
 & 11

Year group: Year 10

	Pizza cutter - Ergonomics	Electronic Dice and Board game project	Teenage Lifestyle - Design project	NEA June 1st- Feb the following year.
Content <i>Declarative Knowledge – ‘Know What’</i>	Students will know what Anthropometric Data and Ergonomics means as well as how this helps in the development of everyday products.	Students will know what is expected of them with the course and introduce them to the NEA coursework as well as the theory content	Students will apply what they have learnt from the prior theory and practise NEA’s to design and make a desktop storage solution for their home office/desk making sure that they are focusing on the needs of the user.	This is their final year 11 project. 3 briefs will be set by the exam board and students will complete a 20 page portfolio which shows evidence of research, design, development, making and evaluation skills. This years briefs are: 1. Multifunctional living 2. Teenage lifestyle 3. Nature and the environment
Skills <i>Procedural Knowledge – ‘Know How’</i>	Students will cover the following sections of the NEA: Research into ergonomics. Developing through modelling. Client feedback. Material testing, Evaluation (user focused) The following theory sections will be covered. Section 1 -New and emerging technologies (1-5) Section 4 - Common specialist and technical	Students will cover the following sections of the NEA: Initial ideas, research into materials. Developing ideas, Making Diary and evaluation. The following theory sections will be covered. Section 3 - Materials and their working properties (14-18) Section 5B Timber based Materials (27-29)	Students will cover the following sections of the NEA: Task analysis, client and consumer research, product analysis, design brief, specification, initial ideas, development, CAD and Physical modelling. Manufacturing plan/specification. Making journals, evaluations, testing and modifications and showcase. The following theory sections will be covered.	Students will apply what we have covered from the previous projects to produce a 20 page NEA portfolio. The following theory sections will be covered. Section 6 - Designing principles (42-45) Section 7 Making principles (46-50) We will be reviewing content covered throughout year 10 in the form of exam prep and practise.



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	principles (chapter 19 & 23)	Section 5C - Polymers (33-35)	Section 2 - Energy, materials, systems and devices. (6-13) Section 4 - Common specialist and technical principles (20-22) Section 6 - Designing principles (42-45) Section 7 Making principles (46-50)	
Key Questions	What is the difference between ergonomics and anthropometrics? How do we record and present data? What is CAD & CAM?	What are the different categories of timbers and polymers? How can we cut and shape timber/polymers? What are the requirements of a successful design idea? What are QC & H&S checks? What is a go/no go gauge.	What is a prototype? Why do we model our ideas before we make them? How can we plan and produce an effective manufacturing specification?	
Assessment	Students will be marked out of 60 and the marks will be broken down like so. Research - 10 Designing - 10 Development -15 Making 15 Evaluation 10 They will also be assessed on Units 1 & 4 which will be in the form of a 45 minute assessment for each unit.	Students will be marked out of 50 and the marks will be broken down like so. Research & Testing - 10 Designing - 15 Making 15 Evaluation 10 They will also be assessed on Units 3, 5b and & 5C which will be in the form of a 45 minute assessment for each unit.	Students will be marked out of 80 and the marks will be broken down like so. Research - 10 Designing - 20 Development -20 Making 20 Evaluation 10 They will also be assessed on Units 1 & 4 which will be in the form of a 45 minute assessment.	Students will be marked out of 100 and the marks will be broken down like so. Research - 10 Design Brief & Specification 10 Designing - 20 Development -20 Making 20 Evaluation 20 They will also be assessed on Units 1 & 4 which will be in the form of a 45 minute assessment.



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Literacy/Numeracy/ SMSC/Character	Measuring and marking, reading and interpreting data, collecting data. , annotations.How to Answer long mark questions.	Measuring and marking, circle theorem, angles, area and volume. Annotations, how to analyse and evaluate, how to Answer long mark questions.	Measuring and marking, circle theorem, angles, area and volume. Annotations, how to analyse and evaluate, how to Answer long mark questions.	Measuring and marking, circle theorem, angles, area and volume. Reading and Interpreting data. Annotations, how to analyse and evaluate, how to Answer long mark questions.
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