

AQA GCSE D&T PRODUCT DESIGN - Year 11

Theory Content.

These relates directly to the knowledge required in both the examination and to help students make informed judgement when completing their Controlled Assessment currently being completed. A wide range of subtractive, forming and reforming making processes will be studied in all material areas.

Metals and Their Applications: This element will look at metals, their characteristics, categorisation, uses and metal industrial processes and extractions/refinement.

Mechanisms and Systems. This element will look at systems such as gears, cams, linkages, levers and other devices that can be applied to design solutions.

Standard Components and Stock Forms. Designers often use standard stock forms to reduce costs and leading in times. Students will learn about a variety of these items, their application and impact on manufacture, designs and costs

Printing, paper, cards, die cutting and embossing. These processes and the types of products they create will be studied and cross referenced with some techniques of metal press forming techniques.

Materials – their properties, sourcing, application and sustainability. This includes carbon Fibre Composites, metals, plastics, woods, smart materials and modern materials.

Regular Timed Tests. These will occur fortnightly in class or remotely at home. Some tests will be open book and others formal exam style conditions.

Social and Moral Issues – These will cover a wide range of topics including social responsibility, sustainability & ethics.

Controlled Assessment Projects.

Student will be working on their final Controlled Assessment Project which is worth 50% of their final grade. The project is a major piece of work and has to be completed in and out of college time. Students will be given individual action plans regularly as their projects are unique to them. Lunchtime and afterschool sessions are offered each week in addition to class time to support the development of this work. The sections to be completed this term are:

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| • Research and Analysis | (10marks) |
| • Design Specification | (10 marks) |
| • Initial Design Development | (20marks) |
| • Development of Design Concept | 20marks) |
| • Final Design Creation | (20marks) |
| • Evaluation and Testing Models | (20marks) |

Recommended online resources:

<https://www.technologystudent.com/> Online resource providing resources, example test papers, animations, videos and teaching. Specifically aimed at the AQA syllabus.

Students will also have access to the Focus education software for Product Design that is used for teaching many of the topics in class.