A-Level Design and Technology: Product Design (AQA)

Entry Requirements

Six GCSEs at Grade 4 or above including at least Grade 4 for English Language and Maths with Grade 5 in Design and Technology or Engineering.

Subject Content

The Product Design course consists of three units:

Non-exam assessment (coursework) Iterative design project	50%
Exam 1: Technical Principles	30%
Exam 2: Designing and Making Principles	20%

It would be a good idea to start collecting your own personal equipment:

- A3 portfolio for storing work
- A3 layout pad
- A4 ring binder
- Lined paper

It would also help if you're able to get some, or all, of the following:

- selection of sketching pencils
- selection of black fine line pens
- selection of coloured pencils
- set of felt tip pens
- tool box / carry case / to store and carry all your equipment
- course book:
  ISBN-13: 978-1510414082

If eligible for the post 16 bursary, resources and materials for the course can be ordered by the school on your behalf via bursary funding. Please ask in the sixth form office for further details.

NEA

The iterative design project requires learners to undertake a substantial design, make and evaluate project centred on the iterative processes of explore, create and evaluate. Learners identify a design opportunity or problem from a context of their own choice, and create a portfolio of evidence in real time through the project to demonstrate their competence.

Exam 1: Technical Principles

This paper is set out through four sets of questions that predominantly cover technical principles within product design. Learners will be required to:

- analyse existing products
- demonstrate applied mathematical skills
- demonstrate their technical knowledge of:
  - materials
  - product functionality
  - manufacturing processes and techniques
- demonstrate their understanding of wider social, moral and environmental issues that impact on the design and manufacturing industries

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Exam 2: Designing and Making Principles

This component has a series of longer answer questions that require learners to demonstrate their problem solving and critical evaluation skills. Learners will be required to:

- apply their knowledge, understanding and skills of designing and manufacturing prototypes and products
- demonstrate their higher thinking skills to solve problems and evaluate situations and suitability of design solutions

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Summer Work

To be completed ready for your first class in September

Task 1: preparation work

1. Choose a handheld product that you have access to at home but **not a phone**
2. Collect images showing the product in use and all of the different views

Task 2: graphic representation of the product

1. Produce a set of drawings of the product, to include
   - isometric
   - two-point perspective
   - orthographic projection
2. Fully annotate the drawings of the product. To do this you can use ACCESSFM
   - identify user needs and requirements
   - evaluate and discuss how well the product meets the needs of the intended user