



<b>Head of Department :</b>	Mr M Chittick	<b>Exam Board :</b>	Edexcel	<b>Level:</b>	A2
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**Edexcel A Level Design and Technology (Product Design)**

Examination 50% Coursework 50%

On the course, students will develop their knowledge and understanding of a range of modern design and manufacturing practices and contemporary design issues. The modern designer must have a good working knowledge of the use of ICT and systems and control technology in the design and manufacture of products. They must also be aware of the important contributions of designers from the past which may provide inspiration for future design.

Students on this course will:

- Use creativity and imagination when applying iterative design processes to develop and modify designs, and to design and make prototypes that solve real world problems, considering their own and others' needs, wants, aspirations and values
- Identify market needs and opportunities for new products, initiate and develop design solutions, and make and test prototypes
- Acquire subject knowledge in design and technology, including how a product can be developed through the stages of prototyping, realisation and commercial manufacture
- take every opportunity to integrate and apply their understanding and knowledge from other subject areas studied during Key Stage 4, with a particular focus on science and mathematics, and those subjects they are studying alongside A Level Design and Technology
- Be open to taking design risks, showing innovation and enterprise while considering their role as responsible designers and citizens
- Develop intellectual curiosity about the design and manufacture of products and systems, and their impact on daily life and the wider world
- Work collaboratively to develop and refine their ideas, responding to feedback from users, peers and expert practitioners
- Gain an insight into the creative, engineering and/or manufacturing industries
- Develop the capacity to think creatively, innovatively and critically through focused research and exploration of design opportunities arising from the needs, wants and values of users and clients
- Develop an in-depth knowledge and understanding of materials, components and processes associated with the creation of products that can be tested and evaluated in use
- Be able to make informed design decisions through an in-depth understanding of the management and development of taking a design through to a prototype
- Be able to create and analyse a design concept and use a range of skills and knowledge from other subject areas, including mathematics and science, to inform decisions in design and the application or development of technology
- Be able to work safely and skilfully to produce high-quality prototypes
- Have a critical understanding of the wider influences on design and technology, including cultural, economic, environmental, historical and social factors
- Develop the ability to draw on and apply a range of skills and knowledge from other subject areas, including the use of mathematics and science for analysis and informing decisions in design

Students will submit a design and make portfolio as a non-examined assessment worth 50% of the A level.

Students will sit one examination at the end of the course which is 2 hours and 30 minutes in duration. This is worth 50% of the A Level.

The new A Level Design and Technology (Product Design) specification is currently in its first year of delivery and will be examined for the first time in May 2019.

**Preparation for the Course**

It is advised that in preparation for the AS Product Design Course students should begin a sketchbook over the summer holidays. The sketchbook should include 2D and 3D renderings of interesting products, buildings, vehicles and other man-made items. The sketches should be in pen, pencil, markers, coloured pencils, pastels or any other drawing implements, and should demonstrate the student's ability to communicate designs on paper.