HECKMONDWIKE
GRAMMAR SIXTH FORM

Design Technology

Exam Board: OCR

The A level Product Design course provides students with a thorough understanding of current design theory and practice, developing the skills needed to design and develop innovative and usable products. An element of flexibility within each project enables students to specialise in their areas of interest with recent projects including a wind tunnel for aeronautical engineering and medical equipment design.

Design Technology

Career Opportunities

Product Designer, Engineering, Architecture, Graphic Design, Manufacturing, Advertising/Marketing, Planning, Civil and Structural Design Engineer.

Together with any design-related career or computer aided design course.

Course Content

YEAR 12

Students will complete a range of focused practical tasks and extended learning projects that will help students develop the skills, knowledge and understanding needed to maximize their success in Year 13.

Students start the year by completing a furniture project based on the Allermuir furniture company. This project will challenge students to design and model a range of products, whilst developing their knowledge and understanding of natural timber and man-made boards.

Students will then complete a number of smaller mini projects that will develop their practical skills and ability whilst broadening their subject knowledge of materials and industrial manufacturing techniques.

Following this students will complete a lighting project that will solve a specific design problem in response to the design brief. This project will allow students to investigate and develop a lighting product for any application.

Course Content

YEAR 13

Iterative Design Project

Students design and develop a marketable product of their choice in response to a specific design problem. Students are free to specialise in specific areas (i.e. Engineering, Graphics and Resistant Materials). Previous projects have included a wind tunnel, wakeboarding training aid and a dental sanitising machine. Students complete an E-Portfolio design folder.

Candidates submit evidence of a single, substantial designing and making activity, from one of the focus areas identified above.

Product Design Examination

This is a written paper that consists of two components; Principles of Product Design and Problem Solving in Product Design.

Students will answer questions that cover the technical principles covered during the course.

Assessment

Iterative Design Project

100 marks – 65hrs

Non-Exam Assessment

(50% of total A level)

Principles of Product Design

Written Examination – 1½hrs

80 marks (26.7% of total A level)

Problem Solving in Product Design

Written Examination – 1¾hrs

70 marks (23.3% of total A level)