

A Level Design and Technology: Product Design at The Warriner School



Design and Technology A Level: Product Design

Exam Board: Eduqas

Entry Requirements:

It is preferable that you have achieved a Grade 6 at GCSE in Resistant Materials, other subject specialisms could be considered with consultation.

Subject overview

Are you creative, imaginative and enjoy a challenge? Enjoy project-based work where you explore a problem through designing, prototyping and making to solve a problem. This is the course for you.

Design and Technology is an inspiring, rigorous and practical subject. This specification encourages learners to 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. The specification enables learners to identify market needs and opportunities for new products, initiate and develop design solutions, and make and test prototypes. Learners should acquire subject knowledge in Design and Technology, including how a product can be developed through the stages of prototyping, realisation and commercial manufacture.

Students will enjoy this course if:

They are a creative individual who wants to develop and sustain their creativity and innovative practice.

They want to develop an understanding of contemporary design and technology practices, recognise the values inherent in design and technological activities, and develop critical evaluation skills in technical, aesthetic, ethical, economic, environmental, sustainable, social, cultural and entrepreneurial contexts.

They aspire to be the next Philippe Starck, Dyson or Marcel Breuer.

They enjoy the challenge of a practical and creative subject.

The assessment of the course is broken down into 2 components

Component 1: Design and Technology in the 21st Century

Written examination: 3 hours - 50% of qualification

Learners take a single examination in the following endorsed area:

- Product Design

The examination includes a mix of structured and extended writing questions assessing learners' knowledge and understanding of:

- Technical principles
- Designing and making principles along with their ability to analyse and evaluate wider issues in design and technology

Component 2: Design and make project

Non-exam assessment: approximately 80 hours - 50% of qualification

This element is in the style of a portfolio that allows graphical and design process to be displayed as well as investigating real situations and products to develop something new. This part of the course allows learners to focus their design and making skills to realise a final designed and manufactured outcome.

A sustained design and make project, based on a brief developed by the candidate, assessing the candidate's ability to:

- Identify, investigate and outline design possibilities
- Design and make prototypes
- Analyse and evaluate design decisions and outcomes, including for prototypes made by themselves and others

The subject content for Product Design is presented under seven main headings:

- Designing and innovation
- Materials and components
- Processes
- Industrial and commercial practice
- Product analysis and systems
- Human responsibility
- Public interaction – marketing and research

Within each area, the content is further divided into sub-headings, each with specified content and amplification.

The design and make project will be based within the same endorsed area as the written examination.

This course enables learners to work creatively when designing and making and apply technical and practical expertise, in order to:

- Be open to taking design risks, showing innovation and enterprise whilst 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 the exploration of design opportunities arising from the needs, wants and values of users and clients
- Develop knowledge and experience of real world contexts for design and technological activity
- 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/product
- 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/products
- 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

Future careers

Engineering, interior design, furniture design, product marketing, model making, jewellery design, Printing, teaching, production design for theatre/film/tv.

The GCE Product design course has been developed to provide a broad educational basis for further training, further education or for moving into appropriate employment within the design sector,

Students who complete the qualification will be well equipped to move on to degree courses, BTEC Higher National Diplomas or NVQs.

Email contact — Mr Lewis — r.lewis@warriner.oxon.sch.uk