

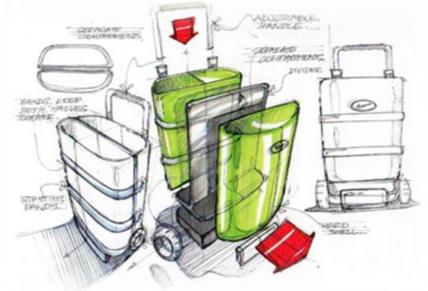


Design & Technology:

Product Design and Fashion and Textiles

Course Information

These creative and thought-provoking qualifications give students the practical skills, theoretical knowledge and confidence to succeed in a number of careers. Especially those in the creative industries. Students will investigate historical, social, cultural, environmental and economic influences on design and technology, whilst enjoying opportunities to put their learning in to practice by producing products of their choice. Students will gain a real understanding of what it means to be a designer, alongside the knowledge and skills sought by higher education and employers.



This qualification is linear, meaning that students will sit all their exams and submit all their non-exam assessment at the end of the course.

Course Content

These courses focus on three main areas: Core technical principles, core design and making principles and additional specialist knowledge.



Core technical principles include: Materials and their applications; the requirements for product design, development and manufacture; design communication; digital design and manufacture; efficient use of materials; health and safety; feasibility studies; design for manufacturing, maintenance and repair, protecting designs and intellectual property; enterprise and marketing in the development of products.

Core designing and making principles include: Design methods and processes and design theory; how technology and cultural changes can impact on the work of designers; design processes; critical analysis and evaluation; selecting appropriate specialist tools, technique and processes; accuracy in design and manufacture to evaluate products, taking into account the views of potential users;

Additional specialist knowledge for **Product Design** includes : Characteristics and working properties of materials; performance characteristics of materials; the use of adhesives and fixings; the use of surface finishes and coatings; forming, redistribution and addition processes; industrial and commercial practice; modern manufacturing systems.

Additional specialist knowledge for **Fashion and Textiles** includes: Characteristics and working properties of materials; working properties and physical characteristics of fibres and fabrics; methods of joining fabrics including the use of fastenings; the performance characteristics of fibres and fabrics; the qualities given to fabrics by the construction methods used; the application of smart materials, e-textiles and technical textiles; the use of non-fibre and fabric materials in textiles and fashion design; the use of components and their appropriateness for a range of products; industrial and commercial practice; the use of pattern drafting and toiles.



Product Design and Fashion and Textiles (continued)

Aims: This course should encourage students 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 maths 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 maths and science for analysis and informing decisions in design.

Assessment

Assessment is by 2 written examinations (each 2 hours, 25% of A level) and a controlled assessment consisting of a substantial design and make task which should take 45 hours and is evidenced by a written or digital design portfolio and photographic evidence of final prototype (50% of A level).

Entry Requirements

For either course a C grade or above is required in the related GCSE Design and Technology subject.