DESIGN & TECHNOLOGY

COURSE DETAILS

Exam Board: AQA
Specification Code: 8552
Website: https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/specification

The Design and Technology GCSE is an exciting course that combines several disciplines, modernising the teaching and learning of Design and Technology and allowing students to develop knowledge and understanding in a broad range of media, with practical elements throughout. The qualification is linear meaning students sit an external exam at the end of the course, along with the submission of the non-exam assessment (coursework).

Designing and making remains at the heart of the subject. The ability to make high quality prototypes is an essential aspect of the course. The course has been designed with both young people and the country in mind, offering students the ability to function and contribute to an increasingly technological world and offering them the foundations for successful employment should they wish to continue with Design and Technology post 16.

Students who have enjoyed Design and Technology at Caldew during Key Stage 3 will find the new GCSE course inspiring, engaging and challenging. They will gain a greater understanding of how technology impacts on people's daily lives and how technology can support the development of an ever- changing world.

The course is designed around three main areas, assessed in both the written exam and the controlled assessment:

1. Core technical principles
2. Specialist technical principles
3. Designing and making principles

Throughout the course students will have opportunities to gain new (and build on existing) skills with tools, equipment and processes used across the disciplines (Resistant Materials, Product Design, Graphic Products, Textiles and Systems and Control). This will include wood working tools, metal work tools, plastics equipment, ICT and CAD/CAM facilities including the laser cutter, CNC router and 3D printer, as well as a proportion of graphics and textiles where they will build upon their understanding of graphic media, printing techniques and industrial processes, as well as enhance their technical drawing skills.

Students will be expected to demonstrate mathematical skills during the course when carrying out tasks in the workshop, as well as good literacy skills. They will develop further knowledge of the environmental concerns related to designing in today's society.

Students will be expected to gain an in-depth understanding of the discipline ('material category') they wish to specialise in during the Non-Exam Assessment, where they will be able to choose from a range of media, directed by their subject teacher to ensure this suits each individual's skills and interests.

ASSESSMENT ARRANGEMENTS
Students will sit the final exam at the end of the course. This will be a 2- hour written paper, marked out of 100, and worth 50% of the overall GCSE. Questions will be divided into 3 sections, based on the principles stated above:

Section A – Core Technical Principles (20 marks)
Multiple choice and short answer questions assess broad technical knowledge and understanding (of all disciplines)

Section B – Specialist Technical Principles (30 marks)
Several short answer questions (2-5 marks) and one extended response to assess a more in depth knowledge of technical principles

Section C – Designing and Making Principles (50 marks)
Short and extended response questions, including a 12 mark *design question*

During Year 11, students will carry out the Non-Exam Assessment in the form of a contextual challenge released by AQA in the summer term of Year 10. Example challenges include: a high profile event; addressing the needs of the elderly; the contemporary home; children's learning and development and the world of travel and tourism.

The Non-Exam Assessment is worth 50% of the overall GCSE, and so, carries with it the need for deep enthusiasm for the subject and commitment to the course, to ensure each aspect of the task demonstrates creativity, flair and originality. The task will be broken down into four main areas:

- Investigating
- Designing
- Making
- Analysing and evaluating

Students will be required to produce a written or electronic design folder/portfolio within a maximum of 20 pages as well as a working prototype to demonstrate the above criteria, completed under supervised conditions within 30-35 hours. Work will be marked by the class teacher and moderated externally by AQA.

This is a fantastic opportunity to study a subject that encompasses a vast range of disciplines, using a wide range of media. Through written and design tasks, team work, ICT, CAD/CAM, investigation, problem-solving, prototyping and multiple practical tasks students will come to understand the importance of Design and Technology and the links to the 'real world'. Using their knowledge of materials, equipment, processes and the environmental concerns related to specific manufacturing techniques, they will be able to question and challenge design briefs until they find creative and innovative design solutions to the problems posed.

MISS A STRINGER