

Why study AQA Design and Technology?

Product designers and designers working in other fields, such as architecture, engineering or automotive design all aim to develop innovative products which consumers want to use. This course will help you to understand and appreciate the design and manufacture of products. You will learn to be creative in your approach to solving technical problems. Computer Aided Design will be used to help with your design ideas and in making products. A broad range of materials can be accessed in the workshop and processes from craft skills to mass production techniques will be investigated. You will gain skills which will be useful in a wide range of design, engineering or manufacturing related jobs. Lessons are a mixture of theory and practical. Nowadays making skills only account for 10% of the overall GCSE grade. To be successful students need to be able to draw to an acceptable level, be able to apply maths to problem solving and have a good grasp of science. Good English skills will also help students to achieve high grades.

You will study:

- computer Aided Design (CAD) and Computer Aided Manufacture (CAM);
- environmental impacts of design;
- enterprise - how business people develop innovative products;
- smart and modern materials such as Glass Reinforced Plastics and composites;
- properties of wood, metals and plastics;
- how to select materials and work with tools and equipment;
- applied mathematics for problem solving;
- how skills and knowledge studied are applied in industry.

You will:

- learn to interpret a design brief and develop a variety of ideas;
- evaluate your designs against a specification and develop the best ideas;
- use your drawing and written communication skills in order to communicate your ideas;
- work practically with wood, metal, plastics and electronics;
- learn how to plan work and solve problems to meet a deadline.

Assessment:

The practical project will start early in Y11.
The final exam takes place at the end of Y11.

Y10 (Sept - March) Practice GCSE project
Y10 (April- July) Exam revision and practice papers.

Y11 (Sept - April) Controlled Assessment. A timed 35hr design folio and practical project on a chosen theme (50% of overall mark).

Y11 (June) Examination on technical aspects of designing and making (50% of mark overall).



Homework

Homework is an integral part of the course and it will be necessary for students to have basic drawing equipment at home and access to a computer and digital camera. Licensed CAD/CAM software is provided for home use. Access to computer equipment is provided, at lunchtime and after school, for students without their own facilities.

A full syllabus is available at

<https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552>