



Design & Technology

GCSE in Design & Technology



Rationale

The GCSE in Design and Technology will prepare students to participate confidently and successfully in an increasingly technological world. Students will gain awareness and learn from wider influences on Design and Technology including historical, social, cultural, environmental and economic factors.

The GCSE allows students to study core technical and designing and making principles, including a broad range of design processes, materials techniques and equipment. They will also have the opportunity to study specialist technical principles in greater depth.

In Year 10, students study the 3 areas of **core technical principles**, **specialist technical principles** and **designing and making principles** through a mix of theory and practical lessons.

The **core technical principles** are:

- energy generation and storage
- developments in new materials
- systems approach to designing
- mechanical devices
- materials and their working properties

The **specialist technical principles** are:

- selection of materials or components
- forces and stresses
- ecological and social footprint
- sources and origins
- using and working with materials
- stock forms, types and sizes
- scales of production
- specialist techniques and processes
- surface treatments and finishes.

The **designing and making principles** are:

- investigation, primary and secondary data
- environmental, social and economic challenge
- the work of others
- design strategies
- communication of design ideas
- prototype development
- selection of materials and components
- tolerances
- material management
- specialist tools and equipment
- specialist techniques and processes

The knowledge and skills developed in Year 10 are then used for the NEA (Non-examinable assessment) project and exam in Y11.

Full course details can be found at www.aga.org.uk under the specification code 8552 GCSE in Design & Technology