

GCSE TECHNOLOGY AND DESIGN SNAPSHOT

OVERVIEW

This specification aims to encourage students to:

- use imagination and develop skills of creativity and critical analysis;
- communicate design ideas and decisions;
- use a broad range of materials, components and technologies to develop and produce high quality, imaginative and functional prototypes;
- consider aesthetic, technical, economic, environmental, ethical and social dimensions when engaged in design and making;
- consider the costs in the making and marketing of products;
- apply health and safety procedures;
- analyse and develop existing products;
- develop decision-making skills;
- apply appropriate technology and design terminology;
- understand that designing and making reflect and influence cultures and societies, and that products have an impact on lifestyle; and
- combine skills with knowledge and understanding to make quality products.

For more information see the specification.

SPECIFICATION SUMMARY

Students have to complete **three** units to gain a GCSE in Technology and Design.

There are **two** external papers, each lasting 1 hour 30 minutes, and one controlled assessment.

Of the three units:

- **Unit 1** covers core content that all students have to complete.
- **Unit 2** has three options, allowing students to focus on electronic and microelectronic control systems, mechanical and pneumatic control systems, or product design.
- **Unit 3** is the controlled assessment, which includes a design portfolio and an associated manufacturing task.

BENEFITS TO STUDENTS

We have designed this specification to help students develop, along with other significant benefits, an ability to:

- engage in technology and design processes and develop as effective and independent learners;
- make decisions, consider sustainability and combine skills, knowledge and understanding to design and make quality products/systems; and
- explore ways in which aesthetic, technical, economic, environmental, ethical and social dimensions interact to shape designing and making.

CROSS-CURRICULAR SKILLS, THINKING SKILLS AND PERSONAL CAPABILITIES THAT WILL BE DEVELOPED

This specification builds on the learning experiences from Key Stage 3 as required for the statutory Northern Ireland Curriculum. It also offers opportunities for students to contribute to the aim and objectives of the Curriculum at Key Stage 4, and to continue to develop the Cross-Curricular Skills and the Thinking Skills and Personal Capabilities. The extent of the development of these skills and capabilities will be dependent on the teaching and learning methodology used.

Our Technology and Design specification includes details of these skills and capabilities, along with specific examples of links to Using ICT, Using Mathematics, Communication, Self-Management, Working with Others and Problem Solving.

UNIQUE FEATURES OF THIS QUALIFICATION/ IMPROVEMENTS MADE

Legacy Specification	Revised Specification
Two controlled assessment units	One controlled assessment unit
Controlled assessment worth 60 %	Controlled assessment worth 50 %
Examination worth 40 %	Examinations worth 50 %



CONTENT AND ASSESSMENT

CONTENT	ASSESSMENT	WEIGHTINGS	AVAILABILITY
Unit 1: Technology and Design Core Content	External written examination 1 hour 30 mins Students answer 10 questions from a core area of study.	25 %	Summer from 2018
Unit 2: Optional Areas of Study	One of three optional written examinations 1 hour 30 mins Students choose one of three options: A. Electronic and Microelectronic Control Systems; or B. Mechanical and Pneumatic Control Systems; or C. Product Design. Students should select the option that reflects the area of Technology and Design they have studied.	25 %	Summer from 2019
Unit 3: Design and Manufacturing Project	Controlled assessment Students complete a design project comprising a design portfolio and an associated manufacturing task. Teachers mark the design project, and we visit centres to carry out	50 %	Summer from 2019

SUPPORTING YOU

The following resources are available to support this specification:

- our Technology and Design microsite at www.ccea.org.uk and
- specimen assessment materials.

We also intend to provide the following, along with additional support:

- past papers;
- mark schemes;
- Chief Examiner's reports;
- Principal Moderator's reports;
- guidance on progression from Key Stage 3;
- planning frameworks;
- support visits; and
- support days for teachers.

SPECIFICATION SNAPSHOT



GCSE Technology and Design

For first teaching from September 2017
For first assessment in Summer 2018
For first award in Summer 2019