

GCSE DESIGN AND TECHNOLOGY

Why choose WJEC Eduqas GCSE Design and Technology?

Through studying GCSE Design and Technology, you will be prepared to participate confidently and successfully in an increasingly technological world; and be aware of, and learn from, wider influences on design and technology, including historical, social/cultural, environmental and economic factors.

The course will offer you the opportunity to solve real problems by designing and making products or systems.

What will I study?

You will Study:

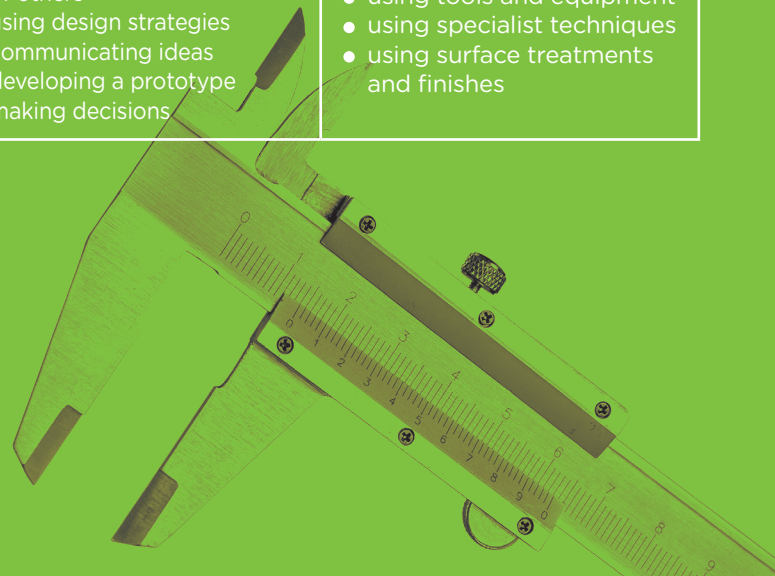
- Technical Principles
- Designing and making principles

This will allow you to develop knowledge and understanding of design and technology, its impact on daily life, and develop a broad understanding of materials, systems and processes.

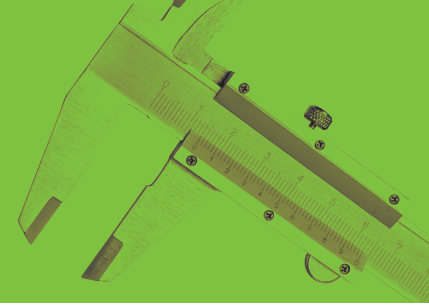
Each of the above areas is further divided into

- core knowledge and understanding
- in-depth knowledge and understanding

Technical Principles	
Core Knowledge and Understanding	In-Depth Knowledge and Understanding
<p>(you will study all the content in these 5 areas)</p> <ul style="list-style-type: none"> • design and technology and our world • smart materials • electronic systems and programmable components • mechanical components and devices • materials 	<p>(you will study at least one of these)</p> <ol style="list-style-type: none"> electronic systems, programmable components & mechanical devices papers & boards natural & manufactured timber ferrous & non-ferrous metals thermoforming & thermosetting polymers fibres & textiles
Designing and Making Principles	
Core Knowledge and Understanding	In-Depth Knowledge and Understanding
<p>(You will study all the content in these 10 areas)</p> <ul style="list-style-type: none"> • understanding design and technology practice • understanding user needs • writing a design brief and specifications • investigating challenges • developing ideas • investigating the work of others • using design strategies • communicating ideas • developing a prototype • making decisions 	<p>(You will cover all of the content in these five areas, in relation to at least one of the topic areas (a to f) identified in the in-depth knowledge and understanding section of technical principles).</p> <ul style="list-style-type: none"> • selecting and working with materials and components • marking out • using tools and equipment • using specialist techniques • using surface treatments and finishes



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What skills will I develop?

Studying Design and Technology will enable you to develop a wide range of transferable skills for further education, work and life:

- Creative and innovative thinking
- Use of imagination and experimentation
- Ability to critique and refine your own ideas
- Knowledge and understanding of all design and technological activity and influences
- Decision making skills
- Develop high quality, imaginative and functional prototypes
- Communication skills

How will I be assessed?

There is one 2 hour written examination (component 1) at GCSE worth 50% of the qualification; the remaining 50% will be a Design and Make task (NEA) (Component 2)

Component 1: Design and Technology in the 21st Century

A mix of short answer, structured and extended writing questions assessing candidates' knowledge and understanding of:

- technical principles
- designing and making principles along with their ability to:
- analyse and evaluate design decisions and wider issues in design and technology.

Component 2: Design and Make Task

A sustained design and make task, based on a contextual challenge set by WJEC, assessing candidates' ability to:

- identify, investigate and outline design possibilities
- design and make prototypes
- analyse and evaluate design decisions and wider issues in design and technology.

Careers with Design and Technology

There are many career paths that Design and Technology could take you down; from Carpenter to Architect all the way to Aerospace engineer.

Here are just some of the industries and jobs that are facilitated by a qualification in Design and Technology:

- **ART AND DESIGN** - Graphic Designer, Sculptor, Gallery Curator
- **IT AND THE INTERNET** - Games Developer, Software Programmer, Network Engineer, Web Designer
- **FAST CONSUMER GOODS** - Mechanical Engineer, Product Designer, Market Researcher

- **FASHION AND BEAUTY** - Fashion Designer, Dressmaker, Hairdresser
- **CONSTRUCTION** - Tradesperson, Architect, Construction Manager
- **MANUFACTURING** - Food Technologist, Manufacturing Engineer, Manufacturing Manager

You could of course carry on studying on Design and Technology at an advanced level, which would allow you the opportunity to study a range of courses at university.