GCSE Design and Technology Qualification Outline

Introduction

This document provides a high-level overview of the WJEC GCSE Design and Technology qualification available for first teaching from September 2026.

It is based on Qualifications Wales's Approval Criteria (gcse-design-and-technology-approval-criteria.pdf). Our qualification **must** meet these requirements.

The qualification outline will provide a guide for the development of the Specification and Sample Assessment Materials (SAMs).

Qualification Overview

The construct of the GCSE Design and Technology qualification is based on the Welsh Government subject specific considerations for Science and Technology[1].

The qualification will:

- through the design and development process, allow learners to explore and respond to various contexts and to reflect on their own work while engaging in rich, authentic experiences.

The following statements for the GCSE Design and Technology qualification are based on the Welsh Government statements of what matters for Science and Technology[2]:

- being curious and searching for answers is essential to understanding and predicting phenomena
- design thinking and engineering offer technical and creative ways to meet society's needs and wants
- the world around us is full of living things which depend on each other for survival
- matter and the way it behaves defines our universe and shapes our lives
- forces and energy provide a foundation for understanding our universe
- computation is the foundation for our digital world.

The GCSE Design and Technology qualification will support the Curriculum for Wales by supporting the principles of progression[3] by:

- increasing effectiveness as a learner by developing application of skills
- increasing breadth and depth of knowledge by exploring and experiencing increasingly complex ideas and concepts
- deepening understanding of the ideas and disciplines and experience
- developing learners' ability to investigate, explore, problem-solve and design both in the physical and digital environments
- allowing learners to make connections and transfer their learning into new contexts

[1] Science and Technology: Introduction - Hwb (gov.wales)

[2] Science and Technology: Statements of what matters - Hwb (gov.wales)

[3] Science and Technology: Principles of progression - Hwb (gov.wales)

Qualification Structure

Unit 1: Design and Technology in the 21st Century Digital examination 30% of qualification Marked by WJEC
Unit 2: Design Project Non-examination assessment 70% of qualification Set by WJEC, marked by centre and moderated by WJEC

These are the percentages for the four assessment objectives:

AO1	**Demonstrate knowledge and understanding** of the principles, materials, tools and techniques used in design and technology	15%
AO2	**Apply knowledge and understanding** of the principles, materials, tools and techniques used in design and technology	30%
AO3	**Develop** designs and tangible products	35%
AO4	**Analyse and evaluate** products and solutions in a range of design and technology contexts	20%

Learners must select **one** of the following pathways:

- engineering design
- fashion and textiles
- product design

Learners must choose the same pathway for both units.
This will be a linear qualification. Unit 2 could be completed any time after the release of the relevant design context briefs and submitted to WJEC in the final year of the course. However, centres should ensure that assessment is completed only when learners have undertaken the necessary teaching and learning and developed the required skills and knowledge. Unit 1 would be completed in the final year of the course.

The qualification will have 120 -140 Guided Learning Hours.

Unit Information

Unit 1 – Design and Technology in the 21st Century

The purpose of this unit is to:

- allow learners to demonstrate a wide range of knowledge, understanding and skills based on Design and Technology
- develop learners' understanding of the design, development, production and use of a range of products, both modern and historical
- provide opportunities for learners to analyse and evaluate links between principles of good design, existing solutions and technological knowledge.

This unit will focus on:

- developing an appreciation of the importance of creativity and innovation to good design practice
- analysing existing products that respond to the users' needs, wants and values
- developing learners' understanding of factors that affect and influence design including historical, social / cultural, environmental and economic.

The unit will be assessed via a digital examination in the second year of the course. It will be set by WJEC and will be available from the 2028 summer series onwards, with a mix of question types that will target AO1 and AO2 equally. Content and assessment will be pathway specific. The duration of the examination is likely to be 1 hour 30 minutes, but this will need further exploration due to the new digital format, which is relevant to manageability for both learners and centres. Questions will be set in a product analysis context and where appropriate will feature Welsh designers, products and practitioners, as well as UK and global practitioners.

Unit 2 – Design Project

The purpose of this unit is to:

- offer learners the opportunity to identify and solve 'real life' problems by designing and making products or systems that respond to the target markets' needs, wants and values
- offer learners the opportunity to apply the iterative design process while developing solutions, including the analysis, evaluation and refinement of ideas as they develop
- develop learners' ability to manufacture high quality, fully functioning prototypes, fit for purpose and fulfilling the needs, wants and values of the users.

This unit will focus on:

- the identification of a range of possible design opportunities
- the production of a clear design brief(s) and detailed specifications that allow design ideas to be generated, tested, developed and refined into quality proposals
- applying the iterative design process to provide creative and innovative solutions
- the production of quality final prototypes that solve identified problems, using appropriate tools, equipment and processes safely and effectively
- analysing and evaluating design solutions considering the end users' needs, wants and values.

The unit will take the form of a non-examination assessment. The unit will be internally assessed and externally moderated. We will update centres in due course with further details regarding the submission of work and moderation.

The mix of tasks for this unit will target AO2, AO3 and AO4. AO3 will have the higher weighting, followed by AO4, then AO2. Design context briefs will be set by WJEC and released to centres on the 1st April each year, for submission during the final year of the course.