



DRAFT APPROVAL CRITERIA

GCSE DIGITAL TECHNOLOGY

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Introduction

This document sets out the approval criteria for GCSE Digital Technology. The criteria have been developed through stakeholder engagement. They include the requirements that an awarding body must meet when developing the specification and assessment materials for GCSEs in this subject.

The approval criteria in this document will come into effect from _____.

Qualifications Wales will only approve a qualification that meets all of the requirements set out in this document together with those set out in the *Approval Criteria for GCSE Qualifications*¹, our *Standard Conditions of Recognition*² and our *Additional Standard Conditions of Recognition for GCSE/GCE Qualifications*³. In developing qualifications to meet these requirements awarding bodies must have regard to *Fair Access by Design*⁴.

Where the requirements set out in this document differ from those prescribed in the *Approval Criteria for GCSE Qualifications*, the *Standards Conditions of Recognition* and the *Additional Standard Conditions of Recognition for GCSE/GCE Qualifications*, the requirements in this document will take precedence.

The rationale required within this document is in addition to the rationale required in the *Approval Criteria for GCSE Qualifications*.

The qualification will be available for first teaching from September 2021 with the first opportunity for full accreditation in summer 2023.

¹ <https://qualificationswales.org/english/publications/qualification-approval-criteria---gcse/>

² <https://qualificationswales.org/english/publications/standard-conditions-of-recognition/>

³ <https://qualificationswales.org/english/publications/additional-standard-conditions-of-recognition-for-gcse-gce-qualifications/>

⁴ <https://gweddill.gov.wales/docs/dcells/publications/150727-fair-access-by-design-en.pdf>

Purpose

GCSE Digital Technology will be a broad-based qualification that allows learners to build on the digital skills, knowledge and understanding that is used both in their school and everyday lives. It will allow learners to develop an understanding of the range of digital technology systems at use in our connected and globalised society, the ways in which they are connected, the possibilities offered to them by digital technologies, as individuals and as members of organisations, the ways in which these systems can be used safely and of the ever-evolving nature of these systems.

The qualification will allow learners to develop skills in understanding and analysing data and in developing a range of digital products and assets that meet the needs of audiences and users, as well as allowing learners to explore the ways in which digital technologies change and enhance communications between people.

The qualification may be taken by learners who wish to begin their journey towards a career that utilises digital technologies or to progress onto advanced level programmes of learning involving digital technologies. The qualification will offer choice to both learners, in how they develop their digital skills, and centres, who may have different resources and skills amongst their staff.

Subject aims and objectives

1. The GCSE Digital Technology specification should ensure learners:
 - 1.1. Become independent, confident and knowledgeable users of existing, new and emerging digital technologies;
 - 1.2. Develop a knowledge of the digital technology systems used by a wide variety of organisations;
 - 1.3. Understand the impact digital technologies can have on individuals and wider society and the ways in which they can bring about change;
 - 1.4. Develop skills in researching and exploring issues before finding and implementing solutions to them;
 - 1.5. Become creators of digital products, in a variety of formats and for a variety of purposes, that meet specified, authentic needs;
 - 1.6. Develop transferable skills in using a range of hardware and software;
 - 1.7. Develop their understanding of the systems development life cycle (SDLC) and of how ideas can become products.

Subject content

2. The subject content of GCSE Digital Technology specifications must meet the subject aims and objectives and include the knowledge, understanding and skills set out for each unit in paragraph 3.

2.1 **Unit 1:** The Digital World

2.2 **Unit 2:** Digital Practices

2.3 **Unit 3:** Communicating in the Digital World.

Unit 1 – The Digital World

3. In Unit 1, GCSE Digital Technology specifications must enable learners to develop knowledge and understanding in the following topic areas, and the following content must be included:

Topics	Content
Section A: Digital Technology Systems	
Data	<ul style="list-style-type: none"> • Analogue and digital data. • Binary representation. • Measuring and storing data. • Transmitting data through networks.
Digital technology systems	<ul style="list-style-type: none"> • Digital devices and means of: <ul style="list-style-type: none"> ○ interaction; ○ connection. • Operating systems and functions. • Software types and functions. • Data backup. • Cloud services.
Section B: The Value of Digital Technology	
Utilising digital technology systems	<ul style="list-style-type: none"> • The systems development life cycle (SDLC). • Adoption of digital technology systems.
Digital communications	<ul style="list-style-type: none"> • Range of digital communication methods for personal, social and business uses. • Reliability of online sources. • Social networking practices and ownership. • Digital footprints. • Privacy and trust.
Impact of digital systems on organisations and individuals	<ul style="list-style-type: none"> • Efficiencies and benefits provided by digital systems. • Changing working practices. • Changing relationships between producers, manufacturers, distributors and consumers. • Rise of services and monetising content.

Securing data and systems	<ul style="list-style-type: none"> • The range of threats to, and attacks, on data. • Means of identifying security breaches. • The range of cyber security and digital resilience controls. • Legal and ethical responsibilities.
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Section C: Perspectives on Digital Technology

NB: For the content marked below with an asterisk, awarding bodies will be required, at least 21 months prior to the next examination but no sooner than 24 months before the next examination, to produce and distribute to centres an updated list of specific content for these areas.

Digital technologies	<ul style="list-style-type: none"> • Key milestones in the development of human communications, computing systems and digital devices. • The contributions of individuals in the development of digital technology systems. • The evolution of: <ul style="list-style-type: none"> ○ industrial and autonomous robotics/vehicles*; ○ augmented reality*; ○ virtual reality*; ○ artificial intelligence*; ○ internet-enabled hardware*. • Noteworthy research on new and emerging trends, future developments and drivers*.
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Unit 2 – Digital Practices

4. In Unit 2, GCSE Digital Technology specifications must enable learners to develop knowledge, skills and understanding in the following topic areas, and the following content must be included:

Topics	Content
Section A: Interrogating Spreadsheet Data	
Data organisation	<ul style="list-style-type: none">• Data, information and knowledge.• Types of data and their characteristics.• Sources of data.• Cleansing and organising data.
Data analytics	<ul style="list-style-type: none">• Searching, sorting and filtering data in single-table sets.• Descriptive data analytics: statistics and visualisation.• Identifying trends, needs and audiences.• Data-informed decision making.• Applications in business, culture, science and society.

5. In **Section B: Data-informed Digital Products**, specifications must require learners to plan, develop and evaluate a digital product that is accessible through a web browser (which may include, but is not limited to, animations, video games or web-based applications) by requiring learners to develop knowledge, skills and understanding in:

Section B: Data-informed Digital Products	
Planning digital products	<ul style="list-style-type: none">• Proposing digital products to satisfy trends, needs or audiences.• Evaluating and selecting designs.• Planning technical aspects of designs (including resource aspects, visual aspects, sound aspects, etc.).• Scheduling and time management planning.
Developing digital products	<ul style="list-style-type: none">• Develop and use appropriate technical skills to develop a digital product.

	<ul style="list-style-type: none"> • Develop a digital product that meets an identified need, trend or audience.
Evaluating the completed digital product.	<ul style="list-style-type: none"> • Testing the digital product to remove errors/bugs and ensure it meets its purpose. • Evaluate the technical skills demonstrated.

6. The specification must require learners to submit data-informed digital products in a specified range of file formats and must ensure that centres are provided with an up-to-date list throughout the lifetime of the specification.

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Unit 3 – Communicating in the Digital World

7. In Unit 3, GCSE Digital Technology specifications must enable learners to develop knowledge, skills and understanding in the following topic areas, and the following content must be included:

Topics	Content
Section A: Social Media and Online Marketing Communications	
Forms of online marketing communications	<ul style="list-style-type: none"> • Social media platforms: <ul style="list-style-type: none"> ○ demographics; ○ characteristics; ○ features. • Online digital marketing: <ul style="list-style-type: none"> ○ forms; ○ placement; ○ coherence and cohesion; ○ targeting.
Impact of online marketing communications	<ul style="list-style-type: none"> • Benefits and opportunities. • Risks.

Section B: Creating Digital Assets and Planning Digital Communications	
Creating digital assets	<ul style="list-style-type: none"> • Using appropriate software to create digital media and assets to support digital communications strategies, in these forms: <ul style="list-style-type: none"> ○ copy (text); ○ photographs, images, graphics and image manipulation; ○ edited live-action moving images.
Planning digital communications	<ul style="list-style-type: none"> • Identifying opportunities and objectives. • Determining online digital marketing communications strategy. • Developing cohesion and coherence between digital assets and copy. • Finalising marketing campaigns.

Assessment objectives

8. The assessment of the knowledge, understanding and skills required in the specification must target the following assessment objectives in line with the indicated weightings:

A01	Demonstrate knowledge and understanding of digital technology systems, including their impact on individuals and organisations and of their continually-evolving nature.	20%
A02	Apply knowledge and understanding of digital technology systems in a range of contexts, including their impact on individuals and organisations and of their continually-evolving nature.	25%
A03	Apply knowledge, skills and understanding to identify audience needs and plan digital products and communications that meet these needs.	20%
A04	Develop, test and evaluate digital products that meet the needs of specified audiences.	35%

Scheme of assessment

9. GCSE Digital Technology specifications must include the following assessment arrangements:

Unit	Arrangements
Unit 1 The Digital World	<ul style="list-style-type: none">• Must be assessed by examination;• Must be set and marked by the awarding body;• Must only use on-screen assessment.
Unit 2 Digital Practices	<ul style="list-style-type: none">• Must be conducted internally and marked externally by the awarding body;• Must require learners to undertake a practical project in which tangible outcomes are produced;• The awarding body must release a substantial data set, or data sets, in spreadsheet format, to centres each series;

	<ul style="list-style-type: none"> • Must require learners to identify an audience, an audience need or a trend by analysing an awarding body-released data set; • Must require learners to plan a digital product, in one of the forms specified in paragraph 4, for the identified audience, audience need or trend; • Must require learners to develop a digital product, or products, in the form they have selected, tailored to the audience, need or trend identified; • Must require learners to test and evaluate the digital product they have developed; • Must allow learners to submit their digital products in the file format in which it was created; • The awarding body must issue to centres a list of acceptable file formats in which work may be submitted.
<p>Unit 3 Communicating in the Digital World</p>	<ul style="list-style-type: none"> • Must be assessed through non-examination assessment; • Must be set by the awarding body; • Must be marked by the centre and externally moderated; • Must require the awarding body to issue annual briefs to centres; • Must require learners to plan and create an online digital communications campaign; • Must require learners to create digital assets for the marketing campaign, including images and live-action moving images; • Must allow learners to present their findings in a variety of digital formats; • Must not require learners to publish their campaigns online.

10. GCSE Digital Technology specifications must set out the way in which changes or revision to content identified as requiring annual updates in paragraph 3 (Unit 1 – The Digital World), section C (Perspectives on Digital Technology) will be communicated to centres.

11. GCSE Digital Technology specifications must set out the range of file formats in which candidates' digital products, created for Unit 2 – Digital Practices, may be submitted and the way in which any changes to this list throughout the lifetime of the qualification will be communicated to centres.

12. GCSE Digital Technology specifications must ascribe 40% weighting to Unit 1 – The Digital World.
13. GCSE Digital Technology specifications must ascribe 40% weighting to Unit 2 – Digital Practices.
14. GCSE Digital Technology specifications must ascribe 20% weighting to Unit 3 – Communicating in the Digital World.
15. The assessment of GCSE Digital Technology must not be tiered.
16. GCSE Digital Technology must require all learners to be assessed, for each unit, in the final year of study. The awarding body must specify the period in which assessment of each unit must take place.

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