

GCSE

WJEC GCSE

Design and Technology

Approved by Qualifications Wales

Delivery Guide

Teaching from 2026

For award from 2028



This Qualifications Wales regulated qualification is not available to centres in England.

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Aims of the Delivery Guide

The aim of the Delivery Guide is to give an overview of the qualification and to help teachers understand how we assess the GCSE. It will offer an introduction to the specification, an assessment overview, and will support teachers in better understanding how to prepare their learners for the assessment of the different units in each qualification. More information on each unit can be found in the separate unit guides.

Qualification Structure

WJEC GCSE Design and Technology consists of two units:

	Unit title	Type of Assessment	Weighting
Unit 1	Design and Technology in the 21 st Century	Digital examination: 1 hour 30 minutes	30%
Unit 2	Design Project	Non-examination assessment	70%

Both units are compulsory.

Unit 1

Design and Technology in the 21st Century

On-screen examination – 1 hour 30 minutes
30% of qualification
80 marks

Overview of unit

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.

Unit 2

Design Project

Non-examination assessment
70% of qualification
100 marks

Overview of unit

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.

Summary of assessment

Unit 1: Design and Technology in the 21st Century

Digital examination: 1 hour 30 minutes

30% of qualification

80 marks

Summary of assessment

Questions requiring objective responses, short and extended answers assessing learners' knowledge and understanding of the core aspects of design and technology and **one** of the following pathways:

- engineering design
- fashion and textiles
- product design.

Unit 2: Design Project

Non-examination assessment:

70% of qualification

100 marks

Summary of assessment

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

- identify, investigate, analyse and outline design possibilities
- design and make prototypes and evaluate their fitness for purpose.

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

- engineering design
- fashion and textiles
- product design.

Learners must select the **same** pathway as chosen within Unit 1.

Assessment Objectives

Unit 1

The distribution of the assessment objectives for this unit is:

AO1	AO2	AO3	AO4	Total
15%	15%	-	-	30%

Unit 2

The distribution of the assessment objectives for this unit is:

AO1	AO2	AO3	AO4	Total
-	15%	35%	20%	70%

Specification and Assessment Pack

When we develop new qualifications, we produce the following documents:

- Specification – this covers all the information and skills that learners are expected to know by the end of their course.
- Assessment Pack – this contains the Sample Assessment Materials (SAMs) i.e.: sample exam papers and sample NEA tasks, relevant controls for the NEA and, mark schemes.

This guide builds upon the information in the specification and assessment pack to help further your understanding of said documents.

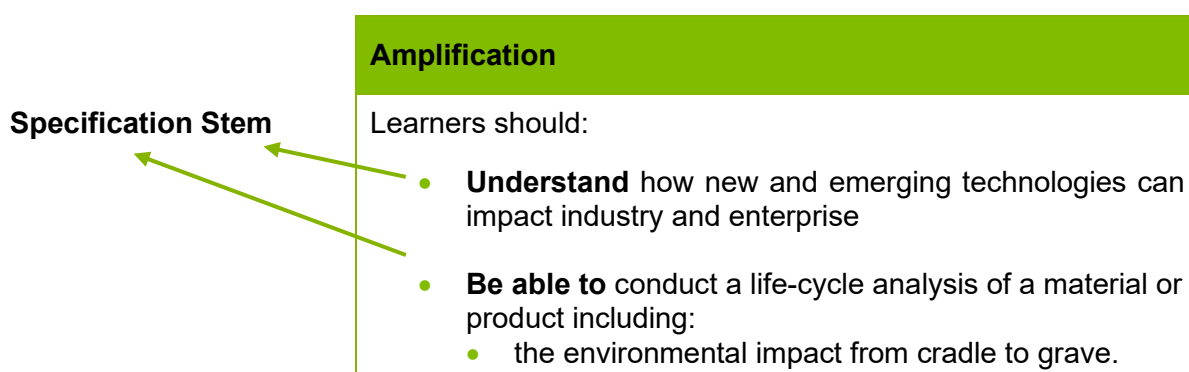
Understanding the specification amplification

Learners should be made aware of:

- the specification stems
- what the specification stems mean.

Specification Stems

When you look through the specification you will notice in the amplification column, we use a variety of wording before the list of content learners need to know; we call this a stem:



Each stem is used for a slightly different reason:

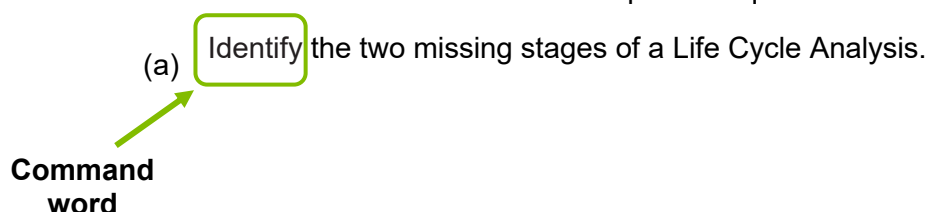
Specification Stem	When it is used
Learners should know	When learners are required to demonstrate basic knowledge and understanding.
Learners should be aware of	When learners do not need to understand all aspects of the specified content in detail. Teachers should refer to Guidance for Teaching documents for further guidance on the depth and breadth to which this content should be taught.
Learners should understand	When learners are required to demonstrate greater depth of knowledge and understanding, application of knowledge to familiar or unfamiliar contexts and analysis and evaluation of information for a given purpose.
Learners should be able to	When learners need to apply their knowledge and understanding to a practical situation or demonstrate application of practical skills and techniques.

Command words

Learners should be made aware of:

- what command words are
- what each command word means
- what each command word assesses.

Command words are the words and phrases used in assessments that tell learners how they should answer the question or complete the task. Command words direct the learner through the question or task and indicate the nature of the response required.



The following tables are not exhaustive but will give you a good idea of the command words we typically use:

Command words for direct recall	
Command Word	Requirements of response
Account	Give reasons for.
Collate	Collect and combine texts, information, or data.
Define	Give the precise meaning of a term.
Describe	Identify distinctive features and give descriptive, factual detail. <i>This is one of the most widely used command words. If an explanation is required then use two command words: 'describe and explain'.</i>
Drag and drop	Move to another part of a screen using a mouse or similar device.
Find	In response to a mathematical problem.
Give	Produce an answer from recall.
Identify/ Tick/ Click / Circle	Point out and name from a number of possibilities.
Label	To designate with a name.
List	State the factors (with no explanation or elaboration).
Match/Link	To choose something that has the same quality as something.
Name	Identify or make a list.

Outline	Set out the main characteristics.
Place	Put in a particular position.
Sort/Order	Arrange systematically.
State	Express in clear terms.

Command words for application/ demonstration of skills:

Command Word	Requirements of response
Apply	Use knowledge and understanding of a theory or concept and relate it to a specified context. Put into effect in an appropriate way.
Calculate	Work out from given facts, figures or information. <i>This command word should only be used in the context of a mathematical question e.g. calculate the value of.</i>
Categorise/classify	Arrange into a particular classification or group.
Clarify	Make (an idea or situation) clear by describing it in more detail.
Change	Make an amendment to, for example, code as required by the question.
Collaborate	Make a contribution to the work of a team, supporting team members as required.
Communicate, write and speak	Share information by speaking or writing.
Complete	Add necessary items/information.
Compose	Write or create.
Construct	Create a framework or argument.
Convert	Change data from one specified form to another.
Demonstrate	Exemplify, describe with reference to examples.
Design	Decide upon the look and functioning of something by making or drawing plans.
Discuss	Present key points.
Display	Present information diagrammatically.
Draw	Draw a diagram/graph/line/picture.
Estimate	Assign an approximate value.

Explain	Give reasons or causes. Show an understanding of how or why something has occurred.
Explore	Investigate without preconceptions about the outcome.
Express	Use given information to rewrite a number or an expression in a specified form.
Illustrate/Show	Use a diagram or words to make clear how a concept or theory works in a particular context. Present clarifying examples. Refer to a case study or example.
Implement/Run	Put (a decision, plan, agreement, etc.) into effect/action.
Interrogate	Question formally and systematically.
Investigate	Carry out research or study into a subject or problem.
Make/Produce/Create	To create/make/manufacture.
Modify	Make changes to give a new orientation to or to serve a new end.
Monitor	Observe, check, or keep a continuous record of something.
Participate	Play a role in.
Perform	To carry out or execute a task, action, or activity.
Place	Put in a particular position.
Plan	A detailed proposal for doing or achieving something.
Populate	Add specified items to.
Present	Communicate in a way that can be clearly followed and understood.
Propose	Suggest a course of action based on supported reasons.
Prove	Demonstrate validity on the basis of evidence.
Record	Obtain and store data and information.
Relate	Demonstrate connections between items.
Report	To prepare a detailed account or statement about an event or a topic.
Review	Survey information.
Select/Choose	Make an appropriate choice from a range of options.

Shift	Use arithmetic shift functions.
Simplify	Re-write an expression or a number in a simpler form.
Suggest	Put forward an idea, reason or course of action.
Summarise	Give a shortened version of something, stating its main points without detail.
Test	To apply a test as a means of diagnosis.
Transform	To change something into a new form.
Translate	Change words into a different language.
Use	Apply the information provided to a particular theory or concept. Employ, take or hold something for a purpose.
Write	Formulate and write down (for example an algorithm).

Command words for synthesis and evaluation

Command Word	Requirements of response
Advise	Suggest a proposal or course of action based on supported reasons.
Analyse	Separate information into components and identify their characteristics.
Argue	Present a reasoned case.
Assess	This is an evaluative question, meaning that there are a number of possible explanations/arguments/outcomes. Make an informed judgement. Make a judgement about the quality or value of something.
Comment	Present an informed opinion.
Compare	Identify similarities only .
Consider	Review and respond to given info.
Contrast	Identify differences only .
Criticise	Assess worth against explicit expectations.
Debate	Present different perspectives on an issue.
Deduce	Draw conclusions from information provided.

Develop	To extend, advance, or elaborate.
Discuss	Examine an issue in detail in a structured way, taking into account different ideas.
Distinguish	Identify the differences between two or more factors.
Evaluate	Judge from available evidence.
Examine	Investigate closely.
Judge	To form an opinion/decide upon critically.
Justify	Support case with evidence.
Recommend/Improve	To suggest as appropriate.
Reflect	To consider thoughts, experiences, situation or issue.
Review	To consider something with the intention of making changes if necessary.
Solve	Obtain the answer(s) using a relevant or specified mathematical method.
Suggest	State a possible reason or course of action.
Support	To maintain or advocate.
Synthesise	Combine information, objects or ideas.

Mark Schemes

Mark schemes and/or assessment criteria test the intended learning outcomes for a component. They describe the knowledge and skills (and possibly attitude) that a candidate is expected to demonstrate in their responses and they are then used in marking the work.

Objective based mark scheme

For very short answer questions requiring one correct response.

Question		Answer	AO1	AO2	Total Mark
3	(a) (i)	Complete the sentence below by selecting the correct component from the list. The automatic doors use a which work by detecting movement.			
		Award one mark for: • Proximity sensor		1	1

Points based mark scheme

For short answer questions with a range of possible responses.

Question		Answer	AO1	AO2	Total Mark
3	(a) (ii)	Correctly label the block diagram.			
		Award one mark for each correct response. Responses must be in the correct order of INPUT – PROCESS – OUTPUT: • Input • Process • Output	3 x 1		3

Levels based mark schemes

For questions requiring extended responses.

4	(b)	Discuss why Frank Lloyd Wright's architecture still influences architects today. Answers that discuss why Frank Lloyd Wright's architecture still influences architects today should be awarded up to five marks, based on: • Frank Lloyd Wright's architecture remains popular and influential today due to several key features and ideas that revolutionized the design world. • These elements not only made his buildings unique in his time but also continue to inspire contemporary architects. • The core aspects of his work that influence architects today are: • Integration with Nature (Organic Architecture) • Innovative Use of Space • Use of Natural Light • Innovative Structural Elements and Materials • Emphasis on Horizontal Lines and Low, Ground-Hugging Designs • Innovative Use of Technology and Design Systems • Personal Vision and Legacy • Architectural Symbolism. Guidance for Markers: <table><tr><th>Band</th><th>AO2</th></tr><tr><td>3</td><td> 5 marks • an excellent response, with clear and detailed references regarding Wright's influence on architects today </td></tr><tr><td>2</td><td> 3-4 marks • a good response, with some clear references regarding Wright's influence on architects today </td></tr><tr><td>1</td><td> 1-2 marks • a limited response, with little reference regarding Wright's influence on architects today </td></tr><tr><td>0</td><td> 0 marks • no response attempted or incorrect response </td></tr></table>	Band	AO2	3	5 marks • an excellent response, with clear and detailed references regarding Wright's influence on architects today	2	3-4 marks • a good response, with some clear references regarding Wright's influence on architects today	1	1-2 marks • a limited response, with little reference regarding Wright's influence on architects today	0	0 marks • no response attempted or incorrect response		5	5
Band	AO2														
3	5 marks • an excellent response, with clear and detailed references regarding Wright's influence on architects today														
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1	1-2 marks • a limited response, with little reference regarding Wright's influence on architects today														
0	0 marks • no response attempted or incorrect response														

Important Dates

First Teaching of WJEC GCSE Design and Technology	September 2026
First assessment for Unit 1 Examination	Summer 2028
First release of NEA assignment brief	April 1 st 2027
First submission of NEA	May 5 th 2028
First Certification	August 2028