GCSE
Design & Technology

Frequently Asked Questions

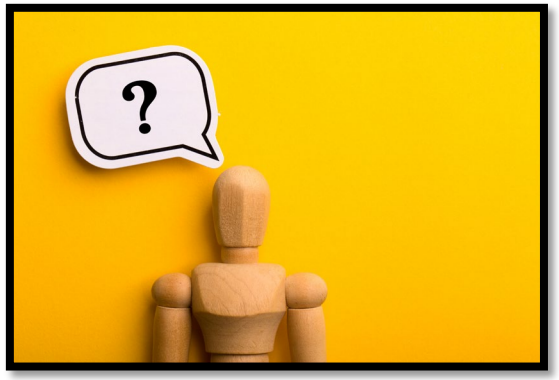
GCSE Design & Technology
New Made-for-Wales GCSEs

The Frequently Asked Questions in this booklet are related to the WJEC GCSE in Design and Technology Specification that was developed **for first Teaching from 2017**.

For information on our New Made-for-Wales GCSE Design and Technology Specification **for first Teaching from 2026** click the icon below to be directed to the relevant webpage.

GCSE Design & Technology Frequently Asked Questions

This booklet has been collated to allow teachers easy and direct access to our most frequently asked questions. The booklet is divided into 3 sections; general qualification questions, Unit 1 and Unit 2.
Click the Images below to take you to the relevant Section.



General Qualification Questions

Unit 1 – The Written Exam

Unit 2 - NEA

Please note: WJEC Design and Technology does not have an official social media outlet and is not a member of any other social media groups. In a time of active social media there have been several instances where information, opinions and individual comments have been misinterpreted and, in some cases, resulted in centres / teachers / candidates following incorrect guidance for certain qualifications. Therefore, we would strongly urge centres to follow guidance provided on our official websites and not inaccurate comments, posts, or releases on 'other' social media forums. If in any doubt, contact the WJEC Design and Technology Team.

General Qualification Questions

- How are the units assessed?
- What is the split in the qualification for the exam and coursework components?
- What are the areas of study?
- What are the entry codes?
- Does this qualification count in performance tables?
- Is there a revision guide available?
- Where can I find professional Learning and exemplar materials?
- Where can I find the grade boundaries?

Unit 1 – The Written Exam

- How is the exam structured?
- How are questions structured?
- What are the topic areas within the core knowledge?
- How much detailed knowledge are students required to have?

Unit 2 - NEA

- What is the deadline for submitting the NEA Unit 2 marks?
- How do I submit the NEA Unit 2 marks?
- Where can I find the Brief?
- Where can I find the Unit 2 - Marksheet?
- Where can I find the Moderator's report?
- How many marks is each assessment criteria worth?
- Does work need to be annotated?
- Is there a prescribed NEA workbook for students to work on?
- What should be included within the sketchbook and portfolio?

Unit 2 – NEA Continued…

Unit 2 - NEA

- Can the portfolio be purely digital?
- How is Unit 2 assessed?
- What paper size should be used?
- Are teachers able to give guidance?
- Can design and practical work be taken home?
- Are writing frames allowed?
- Can a specific making process be done by an outside company?
- I have 28 pupils in my class. Can I use substitute materials to reduce the cost of the projects?

Unit 2 – NEA Continued…

Unit 2 - NEA

- Can my pupils use CAD drawings from the internet in NEA project work?
- Can students disassemble products and use parts / components in NEA project work?
- Some of my students have produced lots of CAD models. Do I need to print all of these out for the visiting moderator to view in the sample I present?
- The visiting moderator has told us that they cannot give feedback at the end of their visit. Is this correct?
- What level of supervision is required; Can students complete their NEA work at home?
- Can a candidate make a scale model instead of a full-scale prototype due to increasing cost of materials and components?

Summary of Assessment

Taken from the specification

Unit 1:
- ✓ 2 hour exam
- ✓ 100 marks
- ✓ Externally examined
- ✓ 50% of qualification

Unit 1: Design and Technology in the 21st Century
Written examination: 2 hours
50% of qualification

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

- engineering design
- fashion and textiles
- product design

Unit 2: Design and make task
Non-exam assessment: approximately 35 hours
50% of qualification

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

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

Unit 2:
- ✓ Non-Exam Assessment
- ✓ Approx 35 GLH
- ✓ 100 marks
- ✓ Internally marked, externally moderated
- ✓ 50% of qualification

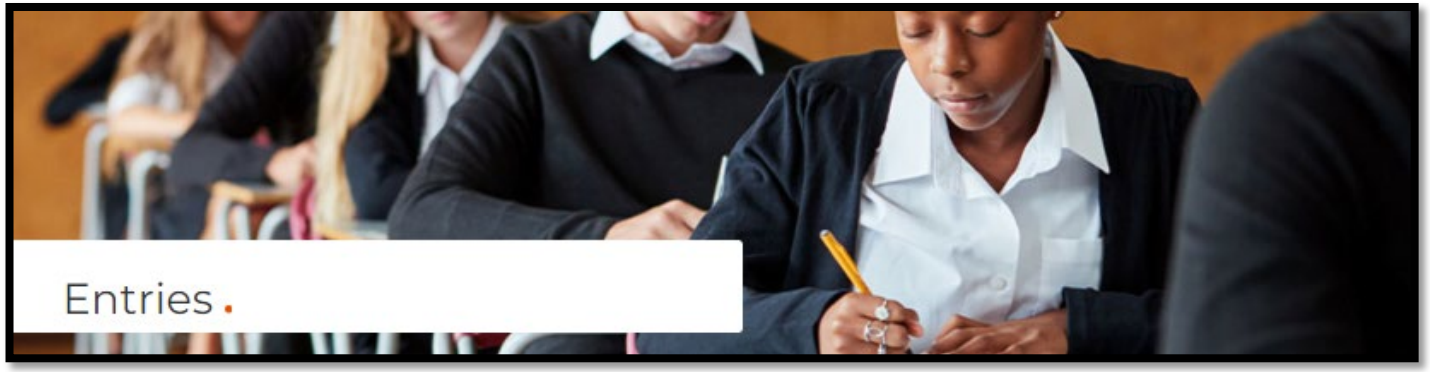
Entries

Available from [WJEC Website]

WJEC GCSE Design and Technology qualification is a linear specification which means that there is only one entry code per level. This one code will enter the students for both Units.

Qualification title	Entry codes	
	English-medium	Welsh-medium
WJEC GCSE Design and Technology (Engineering Design)	3601QS	3601CS
WJEC GCSE Design and Technology (Fashion and Textiles)	3602QS	3602CS
WJEC GCSE Design and Technology (Product Design)	3603QS	3603CS

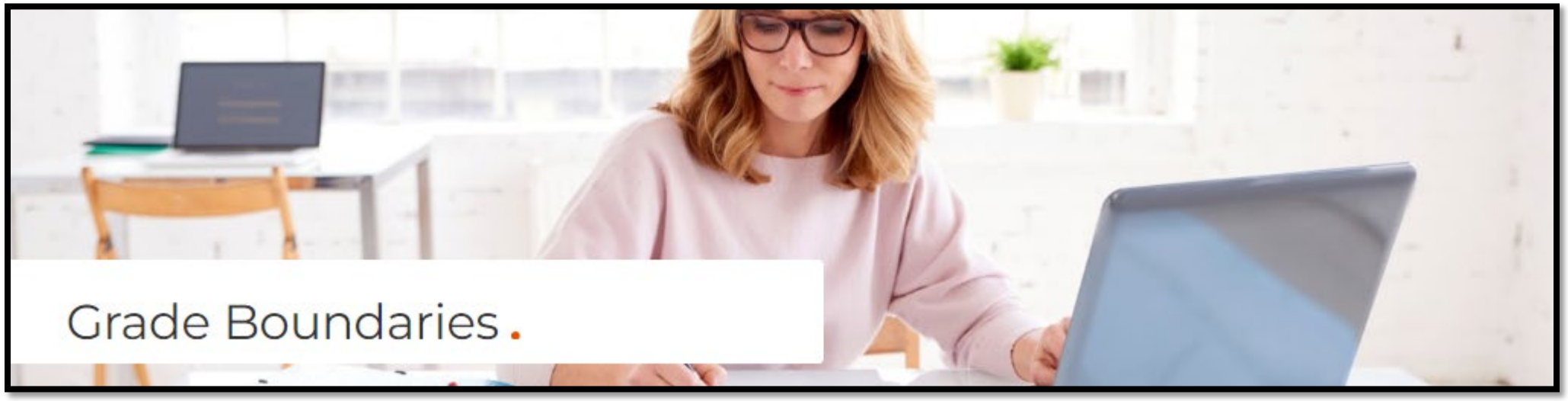
WJEC GCSE Design and Technology qualification counts towards the performance tables measures



Click the image above to find further information regarding entry codes, the submission of preliminary and final entries, basedata, fees and other entries information.

Grade Boundaries

Available from [WJEC Website]

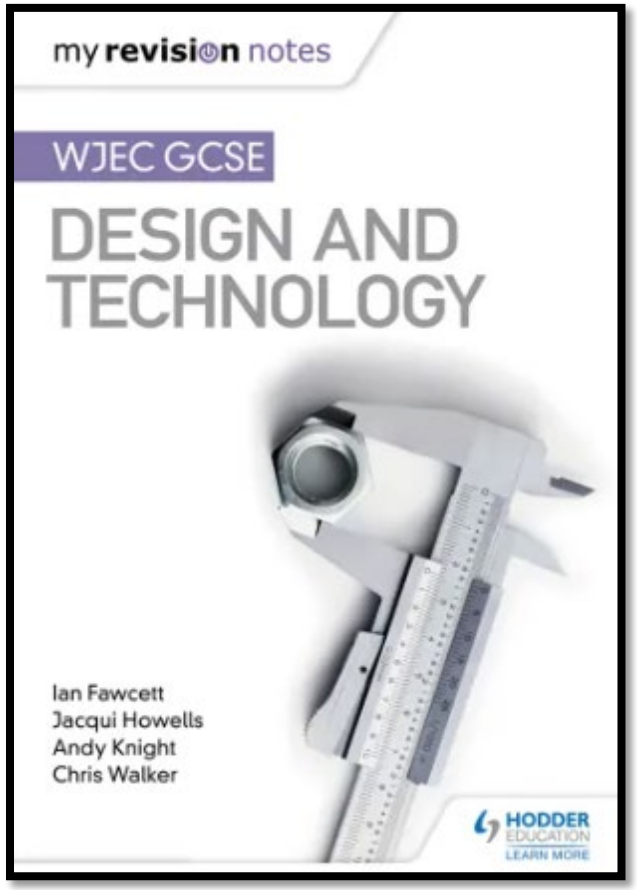


Grade boundaries are the minimum number of marks needed to achieve each grade. Whilst exam papers are written to the same level of difficulty, they do vary each year. Grade boundaries ensure that whenever the exam is sat, students receive the same grade for the same level of performance.

Click the image above to find the latest Design and Technology Grade boundaries.

Textbooks

Available from www.hatchettelearning.com



ISBN:9781510471702

Resources

Available from Subject Webpage

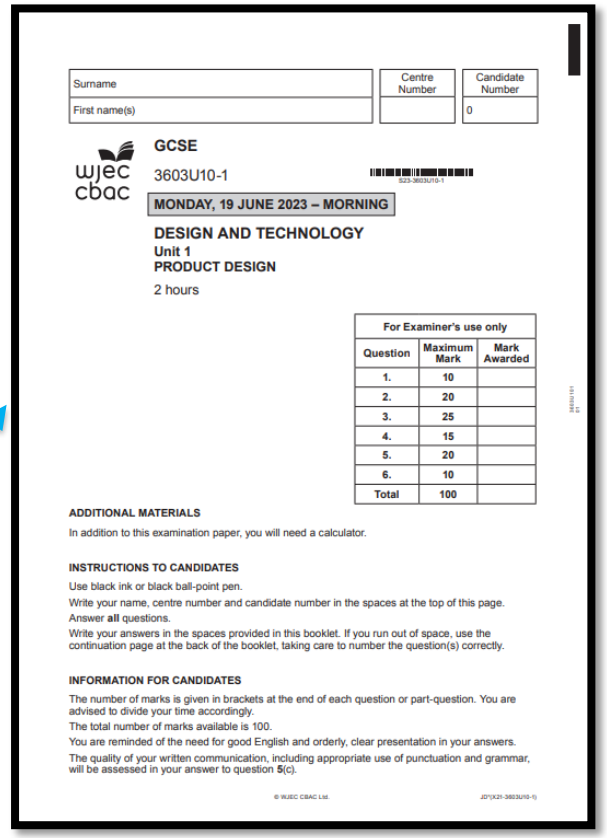
Our Resources Guide shows you where you can access all the key materials and resources that you will need to deliver the GCSE Design and Technology specification.

Exam Structure

The exam paper is made up of both short-structured answers and extended writing questions.

Learners will be asked to use or complete diagrams to support answers their answers.

Click on the image of the Past Paper to view an example of the exam structure



Surname	Centre Number	Candidate Number
First name(s)		0

GCSE

3603U10-1

MONDAY, 19 JUNE 2023 – MORNING

DESIGN AND TECHNOLOGY
Unit 1
PRODUCT DESIGN

2 hours

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	10	
2.	20	
3.	25	
4.	15	
5.	20	
6.	10	
Total	100	

ADDITIONAL MATERIALS

In addition to this examination paper, you will need a calculator.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.
Write your name, centre number and candidate number in the spaces at the top of this page.
Answer **all** questions.
Write your answers in the spaces provided in this booklet. If you run out of space, use the continuation page at the back of the booklet, taking care to number the question(s) correctly.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question. You are advised to divide your time accordingly.
The total number of marks available is 100.
You are reminded of the need for good English and orderly, clear presentation in your answers.
The quality of your written communication, including appropriate use of punctuation and grammar, will be assessed in your answer to question **5**(c).

For all Past Papers and Mark Schemes visit the Subject webpage or Portal

Please read our Publication Policy for more information on when question papers and mark schemes are available on our public website. If the modified format of past paper is not available, please refer to our policy on the Availability of Assessment Materials in Modified Formats for further information.

Knowledge and Understanding

Taken from the specification

Core knowledge and understanding is presented in **six** distinct topic areas:

- **impact of new and emerging technologies**
- **evaluation of new and emerging technologies**
- **energy**
- **modern and smart materials**
- **ecological and social footprint**
- **investigating and analysing the work of others**

Learners are required to study all the content in these six areas, to ensure they have a broad knowledge and understanding of design and technology and that they are able to make effective choices in relation to which materials, components and systems to utilise within design and make activities.

In-depth knowledge and understanding is presented in distinct topic areas related to each of the three endorsed areas:

- **engineering design**
- **fashion and textiles**
- **product design**

Learners are required to study **one** of the three endorsed areas, to ensure they have an in-depth knowledge and understanding to support their design and make activities.

All topics within the core knowledge and understanding and the in-depth knowledge and understanding must be addressed. In each case, the left hand column identifies the content topic and the amplification indicates the areas that need to be covered. Centres are not restricted to how they will deliver this to the learner but it is anticipated that there will be an integrated approach between the core and the in-depth.

For amplification of the Core and In-depth Knowledge and Understanding topic areas please see section **2.1 Knowledge and Understanding** in the WJEC GCSE Design & Technology Specification

Non-Exam Assessment

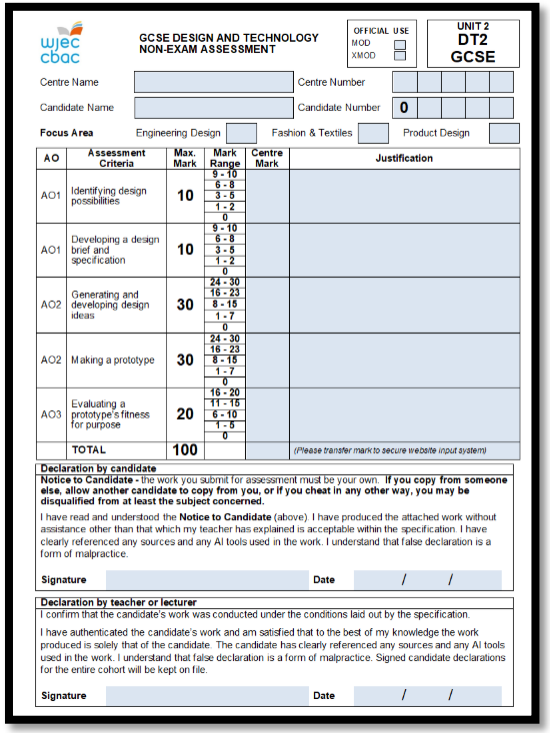
Available from Subject Webpage and on Portal by WJEC

Contextual Challenge Briefs

The GCSE Design and Technology Contextual challenge briefs are released on Portal on the 1st June under the Examinations & Assessments > Non-Examination Assessment Task Tab.

Please ask your Examinations Officer to set you up with a secondary account if you currently have no access.

Click on the images below to download the relevant forms from the Subject Website (resources > Key Documents > Non-Exam Assessment)



GCSE DESIGN AND TECHNOLOGY
NON-EXAM ASSESSMENT

OFFICIAL USE MOD XMOD

UNIT 2 DT2 GCSE

Centre Name | Centre Number

Candidate Name | Candidate Number 0

Focus Area: Engineering Design | Fashion & Textiles | Product Design

AO	Assessment Criteria	Max. Mark	Mark Range	Centre Mark	Justification
AO1	Identifying design possibilities	10	9 - 10 6 - 8 3 - 5 1 - 2 0		
AO1	Developing a design brief and specification	10	9 - 10 6 - 8 3 - 5 1 - 2 0		
AO2	Generating and developing design ideas	30	24 - 30 16 - 23 8 - 15 1 - 7 0		
AO2	Making a prototype	30	24 - 30 16 - 23 8 - 15 1 - 7 0		
AO3	Evaluating a prototype's fitness for purpose	20	16 - 20 11 - 15 6 - 10 1 - 5 0		
	TOTAL	100			*(Please transfer mark to secure website input system)*

Declaration by candidate

Notice to Candidate - the work you submit for assessment must be your own. **If you copy from someone else, allow another candidate to copy from you, or if you cheat in any other way, you may be disqualified from at least the subject concerned.**

I have read and understood the **Notice to Candidate** (above). I have produced the attached work without assistance other than that which my teacher has explained is acceptable within the specification. I have clearly referenced any sources and any AI tools used in the work. I understand that false declaration is a form of malpractice.

Signature | Date / /

Declaration by teacher or lecturer

I confirm that the candidate's work was conducted under the conditions laid out by the specification.

I have authenticated the candidate's work and am satisfied that to the best of my knowledge the work produced is solely that of the candidate. The candidate has clearly referenced any sources and any AI tools used in the work. I understand that false declaration is a form of malpractice. Signed candidate declarations for the entire cohort will be kept on file.

Signature | Date / /

Unit 2: Marksheet (DT2)

GCSE DESIGN AND TECHNOLOGY
NON-EXAM ASSESSMENT

UNIT 2 DT2A

Centre Name | Centre Number

Candidate Name | Candidate Number 0

GDPR CONSENT

Completed forms should be kept securely by your centre.

WJEC may select your work for use in teaching and learning resources published on the WJEC public website. Your name would be removed from your work before we use it. All materials are reviewed regularly and are removed when no longer relevant to our qualifications.

You understand that this agreement may be terminated at any time through written request. You must be over 16 to provide consent otherwise permission must be given by your parent / guardian.

You may withdraw your consent at any time by contacting WJEC on designandtechnology@wjec.co.uk. Please include the title of the work, the year of assessment, centre name and number, candidate name and the component in the communication. It would also be helpful if you could provide a link to the work. WJEC will then ensure the work is removed from the public website.

For further details about how we process your data please read WJEC's privacy notice.

Signature Date / /

If you prefer that WJEC does not use your work in this way, please tick here and include a copy of this form with your work:

Unit 2: GDPR Consent Form (DT2A)

Key Dates

Available from Subject Webpage

Static Dates:

21st February - Entries Deadline

5th May - Submissions of Marks Deadline for Component 2 NEA

For all WJEC Key Dates Click the image above

A List of key dates for WJEC GCSE Design and Technology is available on the Subject Webpage under Resources > Key Documents > Key Information

Published at the start of each year, this document will give you all the important dates you need to plan for the year ahead.

Internal Assessment

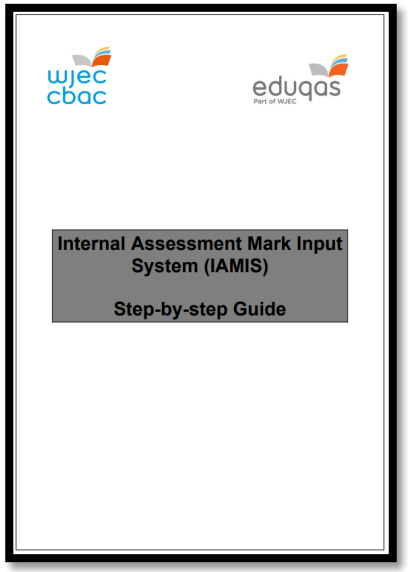
Available from [WJEC Website]

You will need to enter your marks for all your candidates on to the Internal Assessment Mark Input System (IAMIS) via Portal

Once you have submitted all your marks, the system will automatically generate the sample for you – depending on the size of your cohort, this is usually no more than 10 candidates.

All candidate work needs to be available in case the moderator requires work outside the sample of 10.

For information and guidance regarding WJEC internally conducted assessments and the submission of internally assessed work, including how to submit marks; how to carry forward marks and where to find moderator reports click on the image above



Take a look at the IAMIS Step-by-step Guide

Entering Candidates' marks – **Page 6**

Moderator's reports - **Page 16**

Sketchbook & Portfolio

Writing Frames
are **NOT** allowed – these would be classified as leading the learner.

NO prescribed workbook.

Students should use:

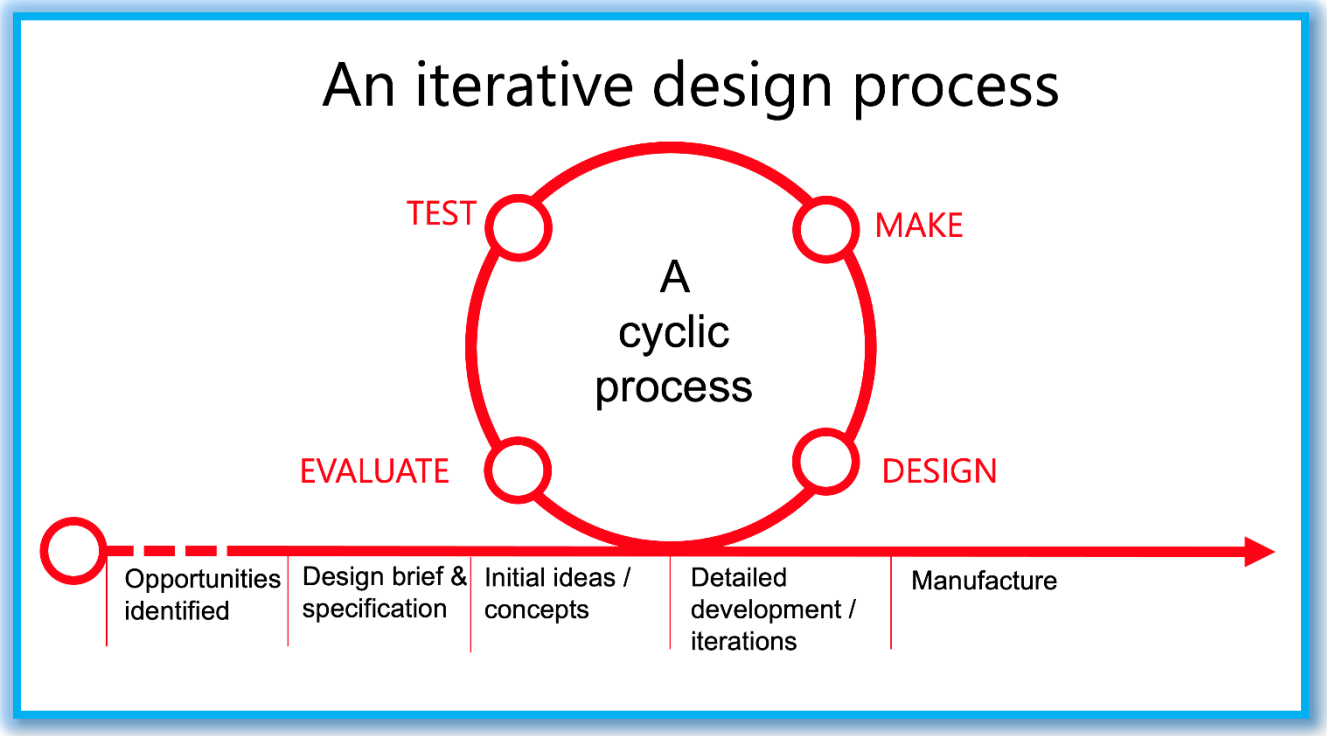
- an **informal** sketchbook
- a **formal** portfolio

This will encourage an iterative approach to design and development of their work.

Digital Portfolios
A portfolio **can be** entirely digital if this is appropriate for the work undertaken and enables the student to fully and successfully address all aspects of the Assessment Objectives. Drawing can be included, for example, using a stylus and graphics tablet or by simply scanning hand drawn sketches.

Paper Size
We are suggesting to you that A4 or A3 paper size should be used. Our recommendation is no more than 20 x A3 (approximately).

Evidence



The iterative process is essential.

It is anticipated that centres will be providing evidence on:

- Reviewing contextual challenges,
- reviewing primary/secondary research,
- suggested design briefs,
- final design brief,
- testing,
- initial design ideas,
- refine and development of ideas,
- prototyping,
- evaluative decision making,
- high quality 2D/3D images of proposals,
- planning/ timelines,
- modifications and evaluations,
- final prototype of finished product etc.

Unit 2 Assessment

Unit 2 is internally marked and externally moderated.

A visiting moderator will be assigned to your centre to look at the sample generated by the online mark input system.

A written report with details of the moderation finding will be made available on results day.

For more information about your Moderation visit click the image

AO	Assessment Criteria	Max. Mark
AO1	Identifying design possibilities	10
AO1	Developing a design brief and specification	10
AO2	Generating and developing design ideas	30
AO2	Making a prototype	30
AO3	Evaluating a prototype's fitness for purpose	20

MODERATION INFORMATION

for Centres

This leaflet outlines the key steps and expectations for centres preparing for Design and Technology moderation of NEA work

Key Dates & Deadlines

Finalise Entries:
All candidate entries must be finalised by **21st February**.

Moderator Contact:
Your allocated moderator will contact you by **mid-April** to arrange a moderation visit.

Confirmation of Visit:
Once a date is agreed, you will receive a confirmation email.

Sample Generation Deadline:
Generate your sample by
~5th May - GCSE
~15th May - AS/A Level

During the Visit

Moderators **cannot confirm outcomes** or provide **verbal feedback** during or after the visit.

Feedback will be provided via the **Moderator Report**, available on **Results Day.**

In rare cases, moderators may need to **take work away** for standardisation.

Any removed work will be **returned by the end of the summer term.**

Preparing for Moderation

Sample Generation:
The moderation sample is **automatically generated** when marks are submitted via the Portal.

On the Day of Moderation:
Provide a **printed copy** of the sample list.
Include the **full candidate entry in rank order.**
Ensure **all candidates**, including those **not in the sample**, have a completed **DT2 mark sheet**:
~Signed by the **candidate**
~Signed by the **teacher**
~Includes **justification comments** referencing specific evidence

Moderator Attendance

You will be allocated either a **Morning** or **Afternoon** session for your visit.

In addition to your moderator, a **Team Leader** or **Principal Moderator** may attend.

This is part of **quality control** for our moderators — **not** additional scrutiny of your centre's NEA work.

Post-Results Services

Post-results services are available to all centres. Please refer to the relevant guidance for details.

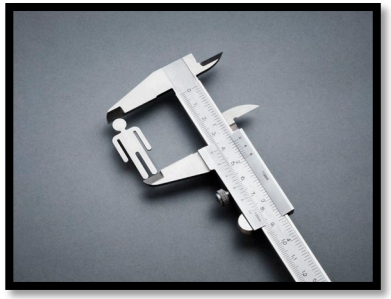
Marking the NEA

Exemplar:
WJEC releases a variety of new and updated resources annually. There are a range of recent exemplar NEAs available via the Portal which will provide detailed support and guidance for teachers when assessing and standardising candidate NEA outcomes.

Annotation:
Annotation throughout the work is not necessary. However, there should be a detailed summative comment on the DT2 Marksheet to indicate how the mark has been awarded for each AO.

Internal Moderation:
If there is more than one teacher teaching the cohort/assessing the NEA, it is pivotal that internal moderation takes place to ensure that the marking standards are the same across the entire group.

Scale Models and Materials



The Final prototype must be:

- **full sized**
- **fully functioning**
- **high quality**

Scale Models are only allowed where a design proposal is unable to be full size i.e., an architectural style model of a series of affordable housing proposals for economically developing countries. In this instance a scale model would be the most effective means of presenting the outcome.

Materials should:

- **be selected appropriately for the intended product**
- **not be substituted for alternatives**

Substituting materials can often prevent candidates from testing products effectively, and this can also have a negative impact on accessing assessment criteria. A substitute material should only be used if the original intended material is not available (or cannot be used in a school setting e.g., hazardous chemicals.)

Cost & Space

We appreciate cost of materials and the logistics of storing larger projects can be problematic for centres, However the use of scale models and substitute materials should not be used in order to alleviate these problems. Where necessary centres should encourage students to produce smaller products that allow them to produce a full sized, fully functioning, high quality prototype with appropriately selected materials.

Teaching D&T will inevitably involve sustainability, and the 6Rs. If an 'old' product (obsolete or broken) is disassembled and parts are used as 'donor' components for a 'new' product that the candidate is developing, this is fine. It should be noted that the new product should **not** be made exclusively from existing parts, the candidate should aim to manufacture the product as it is designed, and where appropriate use 'donor' parts or components instead of sourcing identically versions which are new and possibly costly.

CAD

Candidates should design, develop, test, and refine CAD drawings specifically for NEA project work.

If a kit, CAD drawing or component list is bought-in and assembled, this will not deserve as many marks as a candidate producing their own.

Accessing the assessment criteria is critical, so teachers need to ensure that candidates do not limit the number of opportunities to design, model, test, refine and present their own solutions rather than find existing versions that cannot be credited to the candidate.

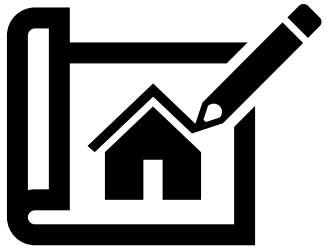
Electronic files can be examined by the moderator electronically. There is no need to print copies for the moderator.

A PowerPoint or Word document showing a series of models can be viewed on screen.

Centres will need to provide the visiting moderator with a temporary account / password to access the work.

It is advised that any electronic work is saved onto a USB drive / memory stick in case moderators need to bring candidate work away from the centre.

Supervision & Guidance



Design work should be completed under some controlled conditions in lessons in the school workshops, but there is some flexibility where e.g. the candidate could work on NEA at home but is supervised via a Teams, Zoom or similar meeting. This allows you to authenticate the work and sign the declaration to confirm that the work is that of the candidate. This approach can be useful if a learner is away from school as a result of an injury or illness e.g. is on crutches, and can't attend school, but can carry on working on NEAs at home. It would not be an extended approach where a candidate completes all the design work and prototype away from the centre without supervision.

Teacher Guidance is **essential** at the start of the NEA, to ensure that the student does not set a problem that is unachievable in the time limit. You may support the student through the process, but **the key word is 'guidance'.**

The design and make task must be appropriately supervised to ensure that assessors are able to confidently authenticate each learner's work. The design and make task should be caried out in the normal design and technology classroom/workshop environment. Learners are allowed supervised access to resources that may include information gathered outside the 35 hours of assessment time.

Each learner must produce their final prototype or prototypes under 'immediate guidance or supervision'. This means the prototype(s) have to be produced either:

I. with the simultaneous physical presence of the learner and the supervisor, or
II. remotely by means of simultaneous electronic communication.

In most cases supervision will be of the form described in (i), but in some circumstances, for example if the learner is carrying out a specialist process away from the centre, (ii) may be more appropriate.

The supervising teacher may give candidates limited guidance during the design and make task in order to clarify what is to be done and to ensure that safe working practices are followed. However, any guidance given must be taken into account when assessing the work. (Page 32-33 WJEC GCSE Design & Technology Specification)

Students are permitted to take their design work home; however, the majority of the work should be done within the school to ensure that the assessor is able to authenticate the work as being the student's own. We suggest that you only allow the students to take home what they are working on and leave the rest of the work in a secure place within the school.

All practical work should be completed within the school or college under the guidance or supervision of the teacher.

The final prototype should be completed within the school or college and not be allowed to be taken home at any point.

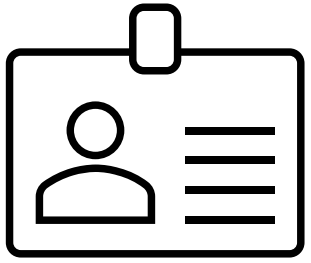
Moderation Feedback

A visiting moderator cannot confirm the centre marks, or any changes to the marks, before the results are published in August.

Centres are provided with a detailed written centre report of the moderation of the NEA work on results day.

Your Moderator's report will be available to download from Portal – under the Internal Assessment Tab, **on results day**. Your report will only remain on the system until December, so it is important that you download and retain a copy before then.

The Subject Team



SUBJECT OFFICER:
JASON CATES
SUBJECT SUPPORT OFFICER:
JODIE MEARING-LANE

029 9940 4303

designandtechnology@wjec.co.uk

Useful Contacts

If you have a Design and Technology query that has not been answered in this booklet, please do not hesitate to contact the Subject Team.

Please click on the image below for other useful contacts, such as; Entries and CPD.