

WJEC GCSE IN  
BUILT ENVIRONMENT

GUIDANCE FOR TEACHING  
UNIT 2 GUIDE (PATHWAY B)



# AIMS OF THE GUIDANCE FOR TEACHING

The principal aim of the Guidance for Teaching is to support teachers in the delivery of the WJEC GCSE in Built Environment specification and to offer guidance on the requirements of the qualification and the assessment process. The Guidance for Teaching is not intended as a comprehensive reference, but as support for professional teachers to develop stimulating and exciting courses tailored to the needs and skills of their own students in their particular institutions.

## AIMS OF THE UNIT GUIDE

The principal aim of the Unit Guide is to support teaching and learning and act as a companion to the Specification. Each Unit Guide will offer detailed explanation of key points in the Specification and aim to explain complex areas of subject content. An overview of the whole course can be found in the Delivery Guide.

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## INTRODUCTION

The **WJEC GCSE Built Environment** qualification, approved by Qualifications Wales for first teaching from September 2021, is available to:

- all schools and colleges in Wales
- subject to local agreement, it is also available to centres outside Wales, for example in the crown dependencies of the Isle of Man and the Channel Islands, and in British overseas territories, and to British forces schools overseas. It is not available to other overseas centres or in England or Northern Ireland.

It will be awarded for the first time in Summer 2023, using grades A\*–G.

## ASSESSMENT OBJECTIVES

- AO1** Demonstrate knowledge and understanding of the roles, sectors, concepts and processes within the built environment using relevant terminology.
- AO2** Apply skills, knowledge and understanding of the built environment in a range of contexts.
- AO3** Analyse and evaluate evidence, make reasoned judgements and present conclusions in relation to:
- learners' own products/outcomes
  - the built environment and its impact on people, the economy and the natural environment.

## OTHER WAYS THAT WJEC CAN OFFER SUPPORT:

- sample assessment materials and mark schemes
- exemplar materials
- face-to-face CPD events
- examiners' reports on each question paper
- direct access to the subject officer
- free online resources
- Exam Results Analysis
- Online Examination Review.

## OVERVIEW OF UNIT 2

### Creating the built environment (40% of the qualification)

#### Overview of the unit

In studying for this unit, learners will develop knowledge and understanding of and skills in creating the built environment. Learners follow one pathway through this unit; either *designing the built environment* or *constructing the built environment*.

Learners should be given the opportunity to develop their knowledge, skills and understanding of either:

- the eight areas of content set out on pages 24 to 30 of the specification for *designing the built environment*, or
- the ten areas of content set out on pages 31 to 40 of the specification for *constructing the built environment*.

## AREAS OF CONTENT: UNIT 2 (PATHWAY B)

2.2.1b	Interpreting technical sources of information
2.2.2b	Planning and organising work
2.2.3b	Identifying resource requirements
2.2.4b	Calculating materials required
2.2.5b	Writing and setting success criteria
2.2.6b	Prepare for construction tasks
2.2.7b	Carrying out techniques
2.2.8b	Removing and disposing of materials
2.2.9b	Using working practices that promote health and safety
2.2.10b	Evaluating construction tasks

## HOW TO READ THE SPECIFICATION

The subject content is sub-divided into clear and distinct topic areas. Within each topic area the knowledge, understanding and skills are set out with an initial overview and then in two columns. The left-hand column identifies the content to be studied. The right-hand column provides amplification of the knowledge, understanding and skills that learners should develop in this area. Together, these two columns give the full content of the specification. There is no hierarchy implied by the order in which the content is presented, and the order does not imply a prescribed teaching order.

The amplification provided in the right-hand column uses the following four stems:

- 'learners should know' has been used for the recall of facts such as legislation and definitions
- 'learners should know and understand' has been used for the majority of the unit content where knowledge needs to lead to a sense of understanding
- 'learners should be aware of' has been used when the volume of content is quite extensive, and learners do not need to understand all aspects in detail
- 'learners should be able to' has been used when learners need to apply their knowledge to a scenario or practical situation.

The amplification provided in the right-hand column includes all of the assessable content for the relevant section, unless it states, 'e.g.', 'including' or 'such as'. In these cases, the amplification lists relevant content, which should be expanded upon in an appropriate way, taking account of learners' needs and interests.

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.2.1b: Interpreting technical sources of information

Content Amplification	Teacher Guidance
<p>(a) Learners should be aware that:</p> <ul style="list-style-type: none"> <li>• specifications are precise details of requirements, presented in textual form, and/or drawings using international standard symbols and terminology which must be interpreted before construction begins.</li> <li>• specifications include:           <ul style="list-style-type: none"> <li>• materials</li> <li>• scope of work</li> <li>• installation process</li> <li>• quality.</li> </ul> </li> </ul>	<p>Learners should be aware a specification is usually utilised in conjunction with working drawings, and is a written document that describes in detail:</p> <ul style="list-style-type: none"> <li>• the scope of work</li> <li>• materials to be used</li> <li>• methods of installation, construction</li> <li>• quality of workmanship for the project</li> <li>• pricing and estimating.</li> </ul> <p>To help set this in context, teachers are advised to refer to the qualification specification and in particular the marking grid (page 64) and the 'Constructing the Built Environment Task' on page 81.</p>
<p>(b) Learners should be aware that building regulations:</p> <ul style="list-style-type: none"> <li>• protect people's safety, health and welfare in and around buildings</li> <li>• improve conservation of fuel and power, protect and enhance the environment and promote sustainable development</li> <li>• cover the construction and extension of buildings</li> <li>• may also cover alteration projects so it is important to check before work begins.</li> </ul>	<p>The Building Regulations may apply in and around buildings. These requirements are intended to protect people's safety, health and welfare. They also set standards for accessibility, water use, energy use and security.</p> <p>It is important to make reference to approved documentation.</p>
<p>(c) Learners should be aware that:</p> <ul style="list-style-type: none"> <li>• drawings produced to recognised (British Standards) scales as specified in BS 1192 are generally:           <ul style="list-style-type: none"> <li>• 1:1, 1:5 and 1:10 for construction details</li> <li>• 1:50, 1:100, 1:200 for layout and site plans</li> <li>• 1:1250 for location plans.</li> </ul> </li> <li>• drawings may be 2D or 3D and include constructional details and the location of components.</li> </ul>	<p>The specification lists a range of scales, types, and drawing conventions required to be adhered to British Standards 1192 [BS 1192] when producing drawings.</p> <p>The standards sets out a method for managing the:</p> <ul style="list-style-type: none"> <li>• production</li> <li>• distribution</li> <li>• quality of construction information.</li> </ul> <p>This includes construction information produced using CAD systems. Learners should be encouraged to make reference to BS 1192 and use this in the production of their work.</p> <p>Drawings may need to be interpreted and understood by a range of stakeholders.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

<p>(d) Learners should be aware that a design brief for a construction project:</p> <ul style="list-style-type: none"> <li>• is developed by the project designer/design team in consultation with the client</li> <li>• outlines the deliverables and the scope of the project including any products or works, the timeline and budget.</li> </ul>	<p>Learners need to be aware that there are a number of key participants of a construction project and their roles need to be considered when a design brief is drawn up.</p>
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### 2.2.2b: Planning and organising work

Content Amplification	Teacher Guidance
<p>(a) Learners should be aware that:</p> <ul style="list-style-type: none"> <li>• in construction projects the sequencing is linked to the specification, the design brief and the drawings.</li> <li>• sequencing is time-framed and needs to meet building regulations and health and safety requirements.</li> <li>• sequencing of work needs to consider the essential stages of any activity undertaken. This includes having the right tools, equipment and personal protective equipment (PPE) as well as the correct materials to complete the activity.</li> <li>• a well-designed sequence of work will create a logical and efficient flow of work which takes account of the time taken to complete specific tasks and when one task is dependent on another being completed first.</li> </ul>	<p>In this section, learners must be aware that there is a need for accurate project planning and that this can be vital to gain a successful outcome.</p> <p>The specification stresses the need for sequencing of work, which should be realistic and viable. The use of planning tools could assist the learner, the traditional planning Gannt chart could prove to be helpful, together with the use of computer-based programs.</p> <p>Learners need to be aware of the types of contingencies, milestones and the use of CPA.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

2.2.3b: Identifying resource requirements	
Content Amplification	Teacher Guidance
<p>(a) Learners should understand:</p> <ul style="list-style-type: none"> <li>• that the tools, equipment, PPE and materials required will be dependent on the trade areas selected and also the tasks to be undertaken in those areas</li> <li>• that a list of all tools required should be completed before working on a construction task, to ensure that every stage of the task can be undertaken as efficiently and effectively as possible</li> <li>• that the list of tools should cover all stages of the construction task, including preparation and finishing of materials</li> <li>• how and why each tool is used and the safety considerations for each item.</li> </ul>	<p>This section has some links with 2.2.2b, for planning and organisation regarding the following is very important:</p> <ul style="list-style-type: none"> <li>• collation of tools, equipment and availability</li> <li>• collation of PPE</li> <li>• correct use of PPE</li> <li>• an awareness of the skill set of tradespeople</li> <li>• timescales</li> <li>• start – hand over date</li> <li>• fit for purpose, materials, tools and staffing/availability</li> </ul>
<p>(b) Learners should understand:</p> <ul style="list-style-type: none"> <li>• that a list of all equipment required should be completed before working on a construction task, to ensure that every stage of the task can be undertaken as efficiently and effectively as possible</li> <li>• that the list of equipment should cover all stages of the construction task, including preparation and finishing of materials.</li> <li>• how and why each piece of equipment is suitable for the scale and nature of the task, and the safety considerations for each item.</li> </ul>	<p>It is vital that learners are familiar with the tools and equipment that they will have access to, and that learners undertake appropriate training which must include safety training.</p>
<p>(c) Learners should understand that:</p> <ul style="list-style-type: none"> <li>• the selection and correct use of appropriate personal protective equipment is essential when undertaking a construction task</li> <li>• depending on the task being undertaken, and the materials and processes being used, personal protective equipment may be required for:             <ul style="list-style-type: none"> <li>• respiratory protection</li> <li>• eye protection</li> <li>• hearing protection</li> <li>• hand protection.</li> </ul> </li> </ul>	<p>No task should be undertaken without the learner displaying confident use in the operation of the selected tools and tooling or equipment.</p> <p>Appropriate PPE must be used when carrying out all tasks.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

(d) Materials based on:	
<ul style="list-style-type: none"> <li>• <b>Characteristics</b> Learners should understand that:               <ul style="list-style-type: none"> <li>• the selection of materials is based on their fitness for purpose for the construction task, taking account of the requirements within the specification</li> <li>• relevant characteristics may include:                   <ul style="list-style-type: none"> <li>• physical properties</li> <li>• mechanical properties</li> <li>• thermal properties.</li> </ul> </li> </ul> </li> </ul>	<p>Fitness for purpose can be easily overlooked and learners need to seriously consider the most suitable materials and equipment when planning for the project.</p> <p>Referring to the design brief when making these decisions is very important to the success of the project.</p>
<ul style="list-style-type: none"> <li>• <b>Qualities</b> Learners should be aware that relevant qualities of materials may be linked to the project's:               <ul style="list-style-type: none"> <li>• quality objectives</li> <li>• budget.</li> </ul> </li> </ul>	<p>Materials are often available in different levels of quality. Higher quality materials may have superior characteristics but may also be more expensive. Design briefs may specify certain levels of quality and for certain materials this can be expressed as 'grades'. For example, busy areas of buildings such as corridors will benefit from higher graded flooring.</p>
<ul style="list-style-type: none"> <li>• <b>Sustainability</b> Learners should be aware that:               <ul style="list-style-type: none"> <li>• sustainability is an increasingly important consideration in the selection of materials, taking into account their environmental impact in terms of:                   <ul style="list-style-type: none"> <li>• production</li> <li>• placing</li> <li>• maintenance.</li> </ul> </li> <li>• a long-term view may also consider how the materials may be recycled.</li> </ul> </li> </ul>	<p>Minimising the impact of construction work on the environment is an important consideration for all stakeholders who are developing construction projects.</p> <p>Learners should be mindful of the fact that certain materials have superior 'green credentials'. Considering the environmental impact of materials should span the lifecycle of those materials from sourcing to recycling or re-use.</p>

- Limitations

Learners should be aware that limitations may be related to:

- cost
- availability
- characteristics/properties
- regulations.

Learners should be aware that limitations, if not seriously considered, will have an effect on the successful outcome of the project.

The design brief of a project will specify material requirements which will need to conform with regulations and offer appropriate characteristics and properties. The cost of materials is a limiting factor as budgets will need to be adhered to. The lack of availability of specified materials within a reasonable time frame may prompt the need for suitable substitutes. Simple phrases such as 'to match existing' (often used in refurbishment work) can prove very difficult when production of those exact materials has ceased.

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.2.4b: Calculating the materials required

Content Amplification	Teacher Guidance
<p>(a) Learners should understand that calculations of quantities of materials required to complete construction tasks should be accurate and allow for rounding up and acceptable wastage.</p> <p>Learners should know how to calculate volumes to quantify materials required, such as:</p> <ul style="list-style-type: none"> <li>● the number of specific lengths of materials, e.g. tongue and groove wood, copper tube</li> <li>● the number of bricks, blocks</li> <li>● the volume of concrete.</li> </ul>	<p>Learners should be able to accurately calculate quantities so as to ensure that there is minimal waste and to reduce production cost [which also applies to time and staffing]. This may be achieved by using a well-thought-out method of calculating the requirements.</p> <p>Learners should understand that very often materials are not available in singular forms or part quantities. They may be forced to purchase in multiples or batches, e.g. full bags of plaster or full tins of paint. Full purchase may be required even though only part quantities will be used. Learners need to be aware that quantities may need to be 'rounded up' and that the effects of rounding up waste and cost need to be considered when making calculations.</p> <p>However, learners need to be aware that mistakes can be costly, not only financially, such as in failing to meet deadlines, but can also affect the environment. Sustainability and recycling must be considered while addressing this section and when developing any project.</p>
<p>(b) Learners should know how to calculate areas to quantify materials required, such as:</p> <ul style="list-style-type: none"> <li>● tins of paint</li> <li>● bags of plaster</li> <li>● rolls of wallpaper</li> <li>● carpet tiles.</li> </ul>	
<p>(c) Learners should know how to calculate perimeters to quantify materials required, such as:</p> <ul style="list-style-type: none"> <li>● fencing</li> <li>● cabling.</li> </ul>	
<p>(d) Learners should know how to calculate the time required to complete tasks, taking into account:</p> <ul style="list-style-type: none"> <li>● the number of people working on the task</li> <li>● the complexity of the task</li> <li>● time-dependent factors such as drying time.</li> </ul>	
<p>(e) Learners should know how to calculate the volume/proportion of different components required to complete a whole, such as mixing:</p> <ul style="list-style-type: none"> <li>● concrete</li> <li>● plaster</li> <li>● mortar.</li> </ul> <p>Learners should be aware that the result may be expressed as a percentage or ratio.</p>	

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.2.5b: Writing and setting success criteria

Content Amplification	Teacher Guidance
<p>(a) Learners should be aware that project tolerance may involve:</p> <ul style="list-style-type: none"> <li>● increase or decrease from planned cost or time</li> <li>● deviations from quality and scope.</li> </ul> <p>Learners should be aware that construction tolerance may involve allowable variations that are not considered to be defects, in terms of:</p> <ul style="list-style-type: none"> <li>● dimensions</li> <li>● strength, stability, mix, and performance.</li> </ul>	<p>This section of the specification is concerned with establishing the success of a project by using focused predetermined criteria. The realisation of a project success can be subjective and objective. Learners should be encouraged to contemplate the following points and their related tolerances:</p> <ul style="list-style-type: none"> <li>● time</li> <li>● cost</li> <li>● quality</li> <li>● safety</li> <li>● client's satisfaction</li> <li>● employees' satisfaction</li> <li>● cash-flow management</li> <li>● profitability</li> <li>● environment</li> <li>● performance</li> <li>● learning and development.</li> </ul>
<p>(b) Learners should understand that a critical success factor for a project is to meet the deadline.</p> <p>Learners should be aware of the following project management techniques designed to help achieve deadlines:</p> <ul style="list-style-type: none"> <li>● setting of realistic timescales</li> <li>● development of plans and Gantt charts</li> <li>● critical path analysis</li> <li>● resource allocation</li> <li>● setting of milestones</li> <li>● use of contingencies.</li> </ul>	
<p>(c) Learners should understand that construction projects are a balance between cost, time and quality.</p> <p>Learners should be aware that in relation to products and materials, quality can be defined by:</p> <ul style="list-style-type: none"> <li>● reference to standards</li> <li>● specification of attributes</li> <li>● nominating suppliers.</li> </ul> <p>Learners should be aware that in relation to standard of workmanship, quality can be defined by:</p> <ul style="list-style-type: none"> <li>● compliance with manufacturers' requirements</li> <li>● reference to a code of practice or standards</li> <li>● approval of samples</li> <li>● testing and inspection.</li> </ul>	<p>Testing links into the evaluation of the success of the outcomes of a product/project and can often be seen as a tool in establishing its 'fitness for purpose'.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.2.6b: Prepare for construction tasks

Content Amplification	Teacher Guidance
<p>(a) Learners should be able to prepare materials, which may be:</p> <ul style="list-style-type: none"> <li>● textiles</li> <li>● wood</li> <li>● brick</li> <li>● plaster</li> <li>● decorations</li> <li>● tiles</li> <li>● electrical</li> <li>● plumbing</li> <li>● heritage</li> </ul> <p>to undertake construction tasks in the two selected trade areas.</p> <p>Learners should be aware that the nature of the preparation will depend on the areas chosen and the tasks themselves.</p> <p>Learners should be able to undertake appropriate preparatory work, which may typically involve:</p> <ul style="list-style-type: none"> <li>● selecting materials</li> <li>● checking quantity</li> <li>● checking for defects</li> <li>● organising materials</li> <li>● measuring</li> <li>● marking out</li> <li>● cutting</li> <li>● setting out.</li> </ul> <p>Learners should understand that:</p> <ul style="list-style-type: none"> <li>● preparation needs to be undertaken with regard to: <ul style="list-style-type: none"> <li>● the main properties of the materials involved</li> <li>● stock forms, types and sizes in order to determine the quantity of materials or components required</li> </ul> </li> <li>● some tasks may require the pre-mixing of materials so</li> <li>● that they are ready for use (e.g. plaster).</li> </ul>	<p>Learners must be able to consider the requirements of the tasks ahead. The specification lists a range of materials from textiles to heritage work, the preparation time and suitable support resources will differ for each task; this needs to be considered long before embarking on a particular task.</p> <p>It is imperative that learners are given the appropriate amount of preparatory time to successfully gather the necessary resources and prepare materials required to proceed with their selected trade tasks.</p> <p>This must be in conjunction with the undertaking of an appropriate standard of training to ensure competency in using the tools and equipment, and the appropriate associated PPE.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.2.7b: Carrying out techniques

Content Amplification	Teacher Guidance
<p>(a) Learners should be able to carry out simple construction tasks which may involve the use of any of the following trade areas. (An example of a simple construction task is shown in brackets in each case. These are provided as examples only, to illustrate the expected level of demand. Centres are free to choose construction tasks to suit their resources and learners' needs and interests.)</p> <ul style="list-style-type: none"> <li>• textiles (cut fabric to size, finish edges, including a means of hanging, to make a curtain)</li> <li>• wood (cut wood to size, to make a shelf and support brackets, and join together)</li> <li>• brick (mix mortar and lay approximately 12 bricks over three courses)</li> <li>• plaster (prepare plaster and approximately 1m<sup>2</sup> of wall, apply plaster, skim and smooth)</li> <li>• decorations (prepare adhesive and wall, hang 3 lengths of patterned wall paper)</li> <li>• tiles (prepare adhesive and wall or floor, apply approximately 12 tiles and grout)</li> <li>• electrical (run cable between an imaginary supply and a wall socket; a light switch and lamp holder)</li> <li>• plumbing (cut and join four lengths of copper tube using a selection of end feed fittings)</li> <li>• heritage for (forge steel to make a bracket suspending a hanging basket)</li> </ul>	<p>There are a wide range of tasks from which that learners/centres may choose. It is very important that serious deliberation should take place within centres in selecting the most suitable tasks to suit their resources and learners' needs and interest, and to allow them to fully address assessment requirements.</p>

<p>(a) The processes involved will depend on the areas chosen and the tasks themselves. Typically, this will involve the learner:</p> <ul style="list-style-type: none"> <li>• measuring</li> <li>• marking</li> <li>• cutting</li> <li>• joining</li> <li>• shaping</li> <li>• assembling</li> <li>• mixing</li> <li>• finishing</li> <li>• applying surface treatments.</li> </ul>	<p>Attention here is needed in regard to some aspects of 2.2.4a: Calculating materials required, and 2.2.8b: Removing and disposing of materials.</p>
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### 2.2.8b: Removing and disposing of materials

Content Amplification	Teacher Guidance
<p>(a) Learners should understand that:</p> <ul style="list-style-type: none"> <li>• preparation for construction, and the construction task itself, should aim to minimise waste</li> <li>• where possible, waste should be reused or recycled.</li> <li>• non-reusable waste should be handled, stored and disposed of appropriately and in compliance with good practice and relevant regulations</li> <li>• where appropriate, shelf-life should be considered before and after use of products.</li> </ul>	<p>Learners must understand that accurate calculations, measurements and estimations are important; not only is it cost effective, but it helps to protect the environment, by minimising waste and reducing world production cost.</p> <p>Reusing materials and upcycling, where possible, should be considered.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.2.9b: Working practices that promote health and safety

Content Amplification	Teacher Guidance
<p>(a) Learners should understand:</p> <ul style="list-style-type: none"> <li>● the importance of ensuring the cleanliness and safety of work areas</li> <li>● that work areas should be clean and free of any obstructions or trip hazards</li> <li>● that the area should be adequately sized for the task allowing for safe completion of all activities</li> <li>● that first aid facilities should be easily reached.</li> </ul>	<p>Safe working procedures and practices are key to a safe working environment and it is the responsibility of staff and learners to ensure that they work safely. Staff need to consider 'risk assessment' and learners should understand that this 'risk assessment' is very important whilst carrying out practical tasks. When carrying out tasks, learners also need to understand that they have a duty of care not only to themselves, but also their peers.</p>
<p>(b) The learner should understand that:</p> <ul style="list-style-type: none"> <li>● the correct personal protective equipment should be selected as part of the planning process and adhered to prior to starting, and during construction tasks</li> <li>● personal protective equipment should be checked for damage and to ensure it is fit for purpose.</li> <li>● personal protective equipment may be required for: <ul style="list-style-type: none"> <li>● respiratory protection – masks</li> <li>● eye protection – goggles, visors</li> <li>● hearing protection – ear plugs, ear muffs</li> <li>● hand protection – gloves, barrier cream</li> <li>● feet protection – steel toe-cap footwear</li> <li>● head protection – hard hats.</li> </ul> </li> </ul>	<p>Linked to 'risk assessment', personal protective equipment [PPE] must be considered for any task that the learner carries out.</p> <p>Tasks should not proceed if the risk is too high or suitable PPE is not available.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.2.10b: Evaluating construction tasks

Content Amplification	Teacher Guidance
<p>(a) Learners should be able to evaluate a finished construction task against the project requirements considering;</p> <ul style="list-style-type: none"> <li>● possible further improvements</li> <li>● possible further enhancements in presentation</li> <li>● areas of the project that were challenging.</li> </ul>	<p>The evaluation should be a systematic review to determine the task's merit, worth and success, as measured against the specification, using a set criteria.</p> <p>Learners need to understand that the primary purpose of evaluation is to enable 'reflection' and assist in the identification of future change or improvements.</p>
<p>(b) Learners should be able to evaluate a finished construction task against personally-set success criteria considering whether;</p> <ul style="list-style-type: none"> <li>● all aspects of the task were within the levels of tolerance</li> <li>● the task was completed to the set timescale</li> <li>● the task was completed to the required quality.</li> </ul>	
<p>(c) Learners should be able to evaluate a finished construction task against the needs of end users, considering:</p> <ul style="list-style-type: none"> <li>● their health and safety</li> <li>● the intended purpose of the outcome of the design task</li> </ul>	

# ASSESSMENT OF UNIT 2 (PATHWAY B)

## Unit 2: Creating the built environment

Non-exam assessment (NEA): approximately 25 hours

40% of qualification

80 marks: 160 UMS

### Unit 2 (pathway B): constructing the built environment

This non-exam assessment (NEA) is composed of a task set by WJEC shown in Appendix B of the specification. WJEC will publish suggested contexts for Unit 2 Pathway B within Appendix B of the specification and refresh it every two examinations series. Learners will have the option of using the context, modifying them, or devising a context of their own.

In Pathway B, constructing the built environment, learners are required to present their written and any drawing work in an A4 or A3 sized document (or a document made up of a combination of both sizes). Additionally, learners are required to present evidence of their construction work using coloured photographic images.

It is important that the images are of sufficient quality and quantity to clearly show relevant features/detail of the construction work. Within the task, learners may include short and extended prose, digital images/photographs, annotated images/diagrams to suit the nature of the task. Whilst the form of presentation is flexible, teachers should ensure that learners' work has the potential to address all of the relevant assessment criteria.

The assessment objective weightings for Unit 2 (pathway B) are:

AO1	AO2	AO3
5%	30%	5%
10 marks	60 marks	10 marks

## FAQs:

### Can learners resit the Unit 2b assessment?

Candidates may resit this unit once only. The better uniform mark score from the two attempts will be used in calculating the final overall qualification grade(s) subject to terminal assessment requirements being satisfied first.

### What is the terminal assessment rule?

Candidates must complete 40% of the overall assessment in the series in which they are cashing in. If the assessment being re-taken contributes to the 40% terminal assessment requirement, the mark for the new assessment will count.

### What is the entry code for this unit?

English-medium	3509UA
Welsh-medium	3509NA

**Is this assessment compulsory?**

This assessment is compulsory for learners studying Pathway B of Unit 2.

**When can candidates submit the Unit 2b assessment?**

Assessment opportunities will be available in May/June each year, until the end of the life of this specification.

Summer 2023 will be the first assessment opportunity for Unit 2b.

**Are candidates assessed on their spelling, punctuation and grammar in this assessment?**

No.

**Will candidates be expected to use content from other units in completing this NEA?**

No, however, given the fundamental nature of the unit 1 content, it is likely that learners will use knowledge and understanding gained from unit 1 when completing many of the NEA tasks.

**How is the qualification reported?**

GCSE qualifications are reported on an eight-point scale from A\*-G, where A\* is the highest grade. Results not attaining the minimum standard for the award will be reported as U (unclassified).

**Will the tasks remain the same throughout the life of the specification?**

Yes.

**Do learners have to use the suggested contexts for the NEA tasks?**

No.

WJEC will publish suggested contexts for Unit 2 Pathway B within Appendix B of the specification, and refresh both every two examinations series. However, learners will have the option of using these contexts, modifying them, or devising a context of their own.

**When should learners complete the Unit 2 (Pathway B) assessment?**

There is no set requirement for the completion of this unit, however, it is likely that most centres will look for it to be completed in year 11 (of a typical two-year delivery programme).

**Can candidates work together on any part of their NEA?**

No. All work completed for assessment must be undertaken on an individual basis.

**How long should learners spend on their NEA?**

Learners should spend approximately 25 hours on their NEA task for Unit 2b.

**How much preparation time is a candidate allowed before attempting a task? i.e. the organisation of tools and equipment or e.g. mixing mortar/plaster, does that go against the learner's GLH?**

The 25 hour allowance for the completion of this NEA encompasses all aspects of the tasks undertaken for the two skills chosen. Investigative work and the prior development of skills will be outside the 25 hour allowance.

**Can learners complete their NEA outside of the classroom?**

Investigative work may be undertaken outside the supervised time and should not be logged as counting towards the time allocated to the NEA task. However, all work other than investigation must be completed under direct supervision and does count towards the time allocated to the NEA task.

**Are there any word or page restrictions for the NEA?**

No.

**How should learners present their NEA work for submission to WJEC?**

Learners are required to present their written and drawing work in an A4 or A3 sized document (or a document made up of a combination of both sizes). Additionally, learners are required to present evidence of their construction work using coloured photographic images. It is important that the images are of sufficient quality and quantity to clearly show relevant features/detail of the construction work.

Learners may include short and extended prose, digital images/photographs, annotated images/diagrams to suit the nature of the task and their interests. Whilst the form of presentation is flexible, teachers should ensure that learners' work has the potential to address all of the relevant assessment criteria outlined in the specification.

**Can the work be a combination of word processed and handwritten?**

Yes.

**Can learners use the internet during the completion of their NEA?**

During their NEA, the use of resources, including the internet, is not tightly prescribed and candidates may have access to such resources. However, the centre must ensure that:

- there is sufficient supervision of every candidate to enable work to be authenticated
- the work that an individual candidate submits for assessment is their own.

**Can teachers provide guidance about candidates' NEA work?**

Teachers can provide 'general advice' and must not provide specific advice about what learners should do to improve their work. Detailed information about what teachers are permitted to advise is provided in section 3.2 of the specification.

**Are learners permitted to redraft their work?**

Once the task is finished and the final assessment made, no further amendments may be made.

**How will work be submitted to WJEC?**

Assessment of the work will be sampled by WJEC. Both the sample and the submission details are made available when the internally assessed marks are entered for all candidates in the cohort.

**If the centre does not have the resources to produce coloured images, would black and white be accepted?**

It is anticipated that images will be coloured. The specification states:

...learners are required to present evidence of their construction work using coloured photographic images. It is important that the images are of sufficient quality and quantity to clearly show relevant features/detail of the construction work.

**Is there a set number of images that are requested and are there any minimum/maximum sizes?**

No. The images should be of a sufficient size to provide clarity of relevant features and details. There is no specific requirement to provide a series of interim images of work being carried out or for there to be images which feature the learners with their work. The images provided should offer sufficient detail to help confirm the assessment decisions associated with that work.

**What provisions will be made for learners who might struggle to access the NEA activities such as learners with disabilities or learners who have specific learning needs?**

WJEC will follow the guidance and rules on reasonable adjustments found in the Joint Council for Qualifications (JCQ) document: Access Arrangements and Reasonable Adjustments: General and Vocational Qualifications.

We believe that, as a consequence of the provision for reasonable adjustments, very few learners will have a complete barrier to any part of the assessment in GCSE Built Environment. We recognise, however, that NEA activities can provide challenges for learners with particular disabilities. We will be pleased to respond to queries from centres on an individual basis should they seek advice on delivery or assessment of the qualification for a particular learner or group of learners, and to discuss what reasonable adjustments might be appropriate to remove or minimise the disadvantage experienced by a learner with disabilities studying the GCSE Built Environment qualification.

## GLOSSARY FOR UNIT 2

Term	Definition
<b>Analyse</b>	To examine in detail in order to discover meaning, essential features, etc. to break down into components or essential features.
<b>Assessment</b>	The action or an instance of making a judgment about something.
<b>Building trades</b>	Trades that are essential to and practised in connection with building construction, such as carpentry, plumbing and bricklaying.
<b>Built Environment</b>	The man-made surroundings that provide the setting for human activity that includes cities, infrastructures buildings, the spaces between them such as parks.
<b>Client</b>	A person or organisation using the services of a professional person or company.
<b>Code of Practice</b>	A document that complements occupational health and safety laws and regulations to provide detailed practical guidance on how to comply with legal obligations.
<b>Construction Industry</b>	The term used to describe the sector of the national economy that carries out building and infrastructure projects.
<b>Contingencies</b>	This is a potential negative event that may occur in the future, such as an economic recession, natural disaster, fraudulent activity, or a terrorist attack.
<b>Design Brief</b>	A written description of what a new project or product should do, what is needed to produce it, how long it will take, etc.
<b>Evaluate</b>	To evaluate is to judge the value or worth of someone or something.
<b>Fit for Purpose</b>	The appropriate, and of a necessary standard, for its intended use.
<b>Gantt Charts</b>	A chart in which a series of horizontal lines shows the amount of work done or production completed in certain periods of time in relation to the amount planned for those periods.
<b>Hazard</b>	Something that can cause harm, such as working at height and using heavy plant and machinery.
<b>Infrastructure</b>	The general term for a basic physical system that supports human activity, such as transportation systems, communication networks and energy distributions.
<b>Interpreting</b>	The act of explaining, reframing, or otherwise showing your own understanding of something.
<b>Legislation</b>	Rules or laws relating to a particular activity that are made by a government.
<b>Manufacturing</b>	The processes required to transform raw materials into useful products.
<b>Milestones</b>	A significant or important event in a project or task.

<b>Pathway</b>	A pathway is a particular course of action or a way of achieving something.
<b>Primary Industries</b>	Industries that extract raw materials from nature for use in their unprocessed state; such as coal, iron ore or for use in manufacturing.
<b>Project Tolerance</b>	A feature of a project's plan, as it recognises allowance of certain variation in duration, budget or quality, to which the project is approved as still successful.
<b>Recycled</b>	Materials or products that have been treated using a special industrial process so that they can be used again.
<b>Regulations</b>	These are rules made by a government or other authority in order to control the way something is done, or the way people behave.
<b>Renewable energy technologies</b>	Technologies involved in the generation or collection of energy from renewable sources, as opposed to generating energy by burning finite resources such as fossil fuels or natural gas.
<b>Risk</b>	A risk is the chance, high, medium, or low, that any hazard will actually cause harm.
<b>Risk assessment</b>	A critical examination of health and safety hazards at a construction site, usually involving a five-step process.
<b>Specifications</b>	A written document describing in detail the scope of work, materials to be used, methods of installation, and quality of workmanship.
<b>Sustainability</b>	To focus on meeting the needs of the present, without compromising the ability of future generations to meet their need.