

WJEC GCSE IN  
BUILT ENVIRONMENT

GUIDANCE FOR TEACHING  
UNIT 3 GUIDE



## 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 for
- 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 3

### Exploring the built environment (25% of the qualification)

#### Overview of the unit

Having gained an introduction to the sector and developed associated skills, in this unit learners are presented with the opportunity to explore the built environment further through the study of two buildings within their local built environment. In studying this unit, they will gain knowledge and understanding in:

- identifying and describing the factors which affect each stage of the building life cycle
- evaluating and analysing each stage within the building life cycle
- researching the stages and processes involved in the design, construction, value and use of their built environment
- presenting their findings in appropriate ways
- comparing and contrasting the processes involved in designing, constructing, valuing and using buildings from different periods.

Learners should be given the opportunity to develop their knowledge, skills and understanding of the seven areas of content set out on pages 42 to 49 of the specification.

## AREAS OF CONTENT: UNIT 3

- |       |  |
|-------|--|
| 2.3.1 | Planning and design stages of buildings and structures |
| 2.3.2 | Construction processes                                 |
| 2.3.3 | Well-being of communities                              |
| 2.3.4 | Post-occupancy evaluations                             |
| 2.3.5 | Building maintenance and repair                        |
| 2.3.6 | Change of use  |
| 2.3.7 | Changing practices                                     |

## 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

Teachers are reminded that studying the defined specification content via relevant local and national contexts will enhance learners' engagement and understanding of the issues concerned.

### 2.3.1: Planning and design stages of buildings and structures

Content Amplification	Teacher Guidance
<p>(a) Learners should be aware of the structure used within the RIBA Plan of Work 2013:</p> <ul style="list-style-type: none"> <li>● core objective</li> <li>● procurement</li> <li>● programme</li> <li>● (town) planning</li> <li>● suggested key support tasks</li> <li>● sustainability checkpoints</li> <li>● information exchanges (at stage completion)</li> <li>● UK Government Information Exchanges</li> </ul> <p><a href="https://www.ribaplanofwork.com/PlanOfWork.aspx">https://www.ribaplanofwork.com/PlanOfWork.aspx</a></p>	<p>It will be useful to learners if frequent reference is made to the RIBA Plan of Work 2013 throughout the planning and designing stages together with other relevant documentation.</p>
<p>(b) Learners should be aware that at the strategic definition stage, the project is appraised and defined so that a brief can be created.</p>	<p>Accurate project planning is vital to gaining a successful outcome. The specification stresses the need for sequencing of work, which should be realistic and viable.</p>
<p>(c) Learners should be aware that the preparation and brief stage includes the development of:</p> <ul style="list-style-type: none"> <li>● key objectives and outcomes</li> <li>● overall budget.</li> </ul>	<p>Learners should be introduced to this stage of the Plan of Work and develop their knowledge and understanding of the nature and development of project objectives including quality objectives, sustainability aspirations and project outcomes. Learners will also need to appreciate the need for project objectives and outcomes to be developed in full consideration of the project budget.</p>
<p>(d) Learners should be aware that the concept design stage includes outline proposals for:</p> <ul style="list-style-type: none"> <li>● structural design</li> <li>● building services</li> <li>● specifications</li> <li>● costs.</li> </ul>	<p>The use of planning tools could assist the learner, such as:</p> <ul style="list-style-type: none"> <li>● traditional planning Gantt chart could prove to be helpful,</li> <li>● use of computer-based programs [CAD].</li> </ul> <p>Learners need to be aware of the types of contingencies,</p> <ul style="list-style-type: none"> <li>● milestones</li> <li>● Gantt chart referencing.</li> </ul>
<p>(e) Learners should be aware that the developed design stage includes developed proposals for:</p> <ul style="list-style-type: none"> <li>● structural design</li> <li>● building services</li> <li>● specifications</li> </ul>	<p>Learners would benefit from being aware of the key practical stages of building a project.</p>

<ul style="list-style-type: none"> <li>• costs.</li> </ul>	
<p>(f) Learners should be aware that at the technical design stage, technical details are prepared for the architect and subcontractors.</p>	<p>Where feasible, it may be worthwhile for learners to make site visits, in order for them to gain a better understanding of the workforce and sub/contractors working on sites.</p> <p>Appropriate videos can support the awareness construction in today's working environment.</p>
<p>(g) Learners should be aware of how their own built environment meets users' needs, considering factors such as:</p> <ul style="list-style-type: none"> <li>• environmental impact</li> <li>• transportation</li> <li>• location of shops and facilities</li> <li>• disabled users</li> </ul>	<p>As signposted in the specification the impact on today's environment is an important consideration. Throughout the world people are endeavouring to reduce the effect that products/projects have on the environment.</p> <p>Learners should be encouraged to have this in the forefront of their minds when embarking upon projects, together with the need for good infrastructures when developing a built environment.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.3.2 Construction processes

Content Amplification	Teacher Guidance
<p>(a) Learners should be aware that the construction stage includes offsite manufacturing and onsite construction.</p>	<p>It would be incorrect to assume that all learners have this knowledge at the start of the course of study. Learners should develop understanding of the:</p> <ul style="list-style-type: none"> <li>• skills</li> <li>• scope of work carried out</li> <li>• various trades/workforce</li> </ul> <p>involved in the construction stage of a project, as well as developing an awareness of their contributions to new build, refurbishment, and conservation / heritage projects.</p>
<p>(b) Learners should be aware of how their own built environment has been constructed to meet needs which are relevant to them.</p>	<p>The built environment is constantly changing and adapting to the needs of communities. New builds may reflect changes in demand for commercial premises, housing and leisure facilities. Existing buildings may also be refurbished and subjected to a change of use in order to address the changing demands of society. The regeneration of geographic areas can be undertaken in order to improve the lives of local residents.</p> <p>Throughout time, buildings have been constructed to meet people's needs and their patterns of life. The processes involved in their construction have reflected current construction practices, technologies and preferences.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.3.3: Well-being of communities

Content Amplification	Teacher Guidance
<p>(a) Learners should be aware that the built environment must meet the needs of the community or it is likely to go into decline as:</p> <ul style="list-style-type: none"> <li>• facilities are used less</li> <li>• shops close</li> <li>• houses become empty</li> <li>• value declines – both financial and intrinsic</li> <li>• the community may have little pride in the environment and begin to abuse it.</li> </ul> <p>Learners should be aware that a built environment which successfully meets the needs of the community can have a range of positive impacts:</p> <ul style="list-style-type: none"> <li>• social impacts:               <ul style="list-style-type: none"> <li>• the community will have pride in the environment</li> <li>• aesthetically pleasing environment in which to live and work</li> <li>• may improve community cohesion</li> </ul> </li> <li>• economic impacts:               <ul style="list-style-type: none"> <li>• encourage investment from outside of the community</li> <li>• community members spend their time and money within the local environment instead of other places</li> <li>• may have a positive influence on the value of properties as there will be greater interest from businesses and home-seekers to move to the area</li> </ul> </li> <li>• cultural well-being impacts:               <ul style="list-style-type: none"> <li>• the built environment can help people feel that they belong in the local community</li> <li>• taking part in activities within the built environment can help people socialise, gain new skills, improve their physical and mental well-being</li> <li>• the built environment can encourage people's interest and value in their history and beliefs.</li> </ul> </li> </ul>	<p>Learners should understand that that the built environment affects the people who use it in a variety of ways, including health, well-being, social and economic.</p> <p>The relationship between people and the built environment is a very complex one and many factors are in play. Communities needs change over time and established built environments may not change in ways or at the speed that meet those changing needs.</p> <p>At a local level, planning considerations need to establish what developments are required and where. There is also the need to protect or enhance certain areas of the locality and assess whether proposed developments are suitable. Occasionally local environments can be impacted upon by national policies and large infrastructure projects.</p> <p>There has been a tendency in the recent past to create 'out of town' developments. This may create some positive impacts, however, any gains are often negated by the well documented decline of the high street. Using local examples of this can help illustrate the complexity of planning for the built environment.</p> <p>Local examples may also be available where developments have been rejected on the basis of impacts including noise, air quality, inappropriate housing design and overly high density.</p> <p>Ideally, a built environment will reflect the needs of the community by providing for those needs and achieve a good balance between rejecting over development/inappropriate development and protection/enhancement.</p> <p>In 2013 a new shopping centre was proposed for the centre of Newport. The development was controversial in that it required the destruction of the 'Chartist Mural'.</p> <p><a href="#">Newport Chartist mural: Protest as demolition takes place - BBC News</a></p>

## EXPLANATION OF THE SPECIFICATION CONTENT

<p>(a) Learners should be aware that the built environment has a significant impact on the natural environment, and that the design, use and maintenance of the built environment affects:</p> <ul style="list-style-type: none"><li>• the use of resources and energy consumption</li><li>• the generation of a range of forms of pollution</li></ul>	<p>A major change in the approach to our thinking about the built environment is the approach sustainability. All changes in the built environment now require a full consideration of the environmental impacts. Ensuring an appropriate approach to the design, use and on-going maintenance is now essential.</p> <p>The Senydd building in Cardiff is a good example of more recent approaches to the built environment which attempt to reduce the impacts on the natural environment.</p> <p><a href="http://senedd.wales">Sustainability (senedd.wales)</a> <a href="http://senedd.cymru">Cynaliadwyedd (senedd.cymru)</a></p>
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## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.3.4: Post-occupancy evaluations

Content Amplification	Teacher Guidance
<p>(a) Learners should be aware that post-occupancy evaluations include consideration of costs such as:</p> <ul style="list-style-type: none"> <li>• maintenance:               <ul style="list-style-type: none"> <li>• decorations</li> <li>• building fabric and services.</li> </ul> </li> <li>• operation:               <ul style="list-style-type: none"> <li>• cleaning</li> <li>• utilities (water and energy).</li> </ul> </li> </ul>	<p>Post-Occupancy Evaluation (POE) is the process of obtaining feedback on a building's performance in use. Learners need to become aware that the value of POE is being increasingly recognised, and it is becoming mandatory on many public projects.</p> <p>POE is considered to be valuable in all construction sectors:</p> <ul style="list-style-type: none"> <li>• healthcare</li> <li>• education</li> <li>• offices</li> <li>• commercial</li> <li>• housing</li> </ul> <p>especially where poor building performance will impact on running costs, occupant well-being and business efficiency.</p>
<p>(b) Learners should be aware that:</p> <ul style="list-style-type: none"> <li>• post-occupancy evaluations include consideration of the building or asset's function from the perspective of the client and those living or working in it</li> <li>• client/occupant satisfaction surveys may include questions on:               <ul style="list-style-type: none"> <li>• spatial conditions (amount of space/layout)</li> <li>• light (natural and artificial)</li> <li>• acoustics/noise</li> <li>• air quality and temperature</li> </ul> </li> </ul>	<p>Below are some of the more common POE considerations:</p> <ul style="list-style-type: none"> <li>• workspace configurations</li> <li>• heating and ventilation</li> <li>• adjustable furniture</li> <li>• communications infrastructure</li> <li>• collaborative work environments.</li> </ul>
<p>(c) Learners should be aware that post-occupancy evaluations include consideration of the performance of the building or asset, in terms of:</p> <ul style="list-style-type: none"> <li>• suitability for purpose</li> <li>• efficiency</li> <li>• energy performance.</li> </ul>	<p>Learners need to be armed with the knowledge that not all buildings perform as planned:</p> <ul style="list-style-type: none"> <li>• affecting operational costs</li> <li>• staff performances</li> <li>• client satisfaction</li> <li>• Health and Safety issues.</li> </ul> <p>POE helps organisations ensure that their building meet specifications and end user requirements.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.3.4: Post-occupancy evaluations

Content Amplification	Teacher Guidance
<p>(d) Learners should be aware that post-occupancy evaluations include consideration of health and safety issues related to the occupancy/use of the building or asset, such as:</p> <ul style="list-style-type: none"> <li>● the provision of safety features/equipment</li> <li>● the function of the building/asset</li> <li>● risks associated with the use of the building/asset</li> <li>● compliance with relevant legislation.</li> </ul>	<p>Learners should be encouraged to research POE as an evaluation tool it is increasing becoming popular on many public projects.</p> <p>It can provide:</p> <ul style="list-style-type: none"> <li>● environmental monitoring</li> <li>● definitive physical measurement data on a building's performance in use, including:                             <ul style="list-style-type: none"> <li>● temperature</li> <li>● noise</li> <li>● light</li> <li>● air quality</li> <li>● ventilation and relative humidity.</li> <li>● relevant health-related and environmental standards data.</li> </ul> </li> </ul>
<p>(e) Learners should be aware that post-occupancy evaluations include consideration of comfort, taking account of:</p> <ul style="list-style-type: none"> <li>● personal factors of occupants such as:                             <ul style="list-style-type: none"> <li>● age</li> <li>● gender</li> <li>● activities undertaken</li> </ul> </li> <li>● health and well-being</li> <li>● thermal comfort</li> <li>● air quality</li> <li>● visual comfort</li> <li>● ergonomics.</li> </ul>	<p>This section refers to the management of a built environment to provide suitable and safe conditions for occupants and their activities.</p> <p>It is important that learners realise when people are dissatisfied with their thermal environment, not only is it a potential health hazard, it also impacts on their ability to function effectively, their satisfaction at work. These factors need to be considered when designing and developing a building.</p>
<p>(f) Learners should be aware that:</p> <ul style="list-style-type: none"> <li>● if a built environment does not perform as planned, there can be impacts on client/occupant satisfaction, productivity, efficiency, health and safety and comfort</li> <li>● post-occupancy evaluations provide an important way of gaining feedback on the built environment's performance in use by:                             <ul style="list-style-type: none"> <li>● identifying immediate problems which need to be resolved</li> <li>● identifying any gaps in communication which impact on the building operation</li> <li>● providing lessons that can be learned to improve the design and construction of future projects</li> <li>● acting as a benchmarking aid to compare across projects and over time.</li> </ul> </li> </ul>	<p>Learners need to become familiar with the benefits of POE for the occupant and client:</p> <ul style="list-style-type: none"> <li>● occupants' environmental comfort</li> <li>● some control over their environmental conditions</li> <li>● the building's impact on productivity</li> <li>● the buildings performance</li> <li>● staff and user retention and motivation</li> <li>● customer experience</li> <li>● user satisfaction with amenities,</li> <li>● image and layout, the design</li> <li>● procurement</li> <li>● construction and handover processes.</li> </ul>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.3.5: Building maintenance and repair

Content Amplification	Teacher Guidance
<p>(a) Learners should understand that:</p> <ul style="list-style-type: none"> <li>• appropriate maintenance ensures that buildings do not deteriorate visually and continue to operate efficiently</li> <li>• maintenance is most effective when organised through a cyclical programme</li> <li>• maintenance can be:               <ul style="list-style-type: none"> <li>• planned</li> <li>• preventative</li> <li>• corrective</li> </ul> </li> <li>• maintenance and repair may involve:               <ul style="list-style-type: none"> <li>• painting</li> <li>• landscaping and gardening</li> <li>• building services maintenance</li> <li>• window and door repairs</li> <li>• gutter clearance and repair</li> <li>• carpentry</li> <li>• carpeting and flooring cleaning and repair.</li> </ul> </li> </ul>	<p>This section of the specification is concerned with, the understanding of the main objective of maintenance is to limit deterioration.</p> <p>Inspections carried out at regular intervals, coupled with prompt action to pre-empt or remedy problems, are the basis of effective maintenance.</p> <p>Although it is often seen as mundane, maintenance forms a cornerstone of building conservation.</p> <p>Maintenance is the repair / prevention of decay, deterioration and damage caused by weather, aging and in general so that a building retains a good appearance and operates efficiently.</p>
<p>(b) Learners should be aware of the maintenance and repair impacts on users in terms of:</p> <ul style="list-style-type: none"> <li>• cost</li> <li>• inconvenience</li> <li>• productivity</li> <li>• health and well-being.</li> </ul>	<p>It should be promoted that maintenance is cost-effective in:</p> <ul style="list-style-type: none"> <li>• time</li> <li>• money spent on routine care</li> <li>• regular surveys and minor repairs protect the value of the building.</li> </ul> <p>Good maintenance also helps to ensure the health and safety of building users and the general public.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.3.6: Change of use

Content Amplification	Teacher Guidance
<p>(a) Learners should be aware of the following in relation to refurbishing, recycling and re-use of building stock and assets:</p> <ul style="list-style-type: none"> <li>• refurbishing involves:               <ul style="list-style-type: none"> <li>• assessing current condition</li> <li>• preventing further decay</li> <li>• ensuring structural stability</li> <li>• demolition</li> <li>• first fix</li> <li>• plastering</li> <li>• second fix</li> <li>• decorating</li> <li>• snagging</li> </ul> </li> <li>• recycling involves the salvage of materials that can be recycled, including:               <ul style="list-style-type: none"> <li>• metals</li> <li>• wood</li> <li>• vegetation and topsoil</li> </ul> </li> <li>• re-use covers:               <ul style="list-style-type: none"> <li>• re-use of a building for a different purpose, for example, converting an historic industrial building into residential accommodation</li> <li>• salvage of materials and components that can be reused, including:                   <ul style="list-style-type: none"> <li>• appliances</li> <li>• plumbing fixtures</li> <li>• cabinets and stairs</li> <li>• doors and windows</li> <li>• wood</li> <li>• bricks</li> <li>• electrical fittings</li> <li>• roof tiles</li> </ul> </li> </ul> </li> </ul>	<p>It would be fair to say that the majority of learners appreciate the value of using more recycled and reusable materials in a construction project, which it can reduce overall costs in addition to allowing consideration of the world's resources and the environmental impact of the project.</p> <p>However, learners need to be informed that there are several sources of potential cost savings:</p> <ul style="list-style-type: none"> <li>• reusing construction demolition and excavation materials</li> <li>• importing recovered and recycled materials</li> <li>• effective planning/costing.</li> </ul> <p>Some research indicates that sympathetically upgrading and reusing existing buildings, rather than demolishing and building new, could dramatically improve a building's energy efficiency and would make substantial energy savings because the CO<sub>2</sub> emissions already embodied within existing buildings would not be lost through demolition.</p> <p>Learners benefit from understanding that the salvage industry is emerging as a growing source of reusable materials. This not only conserves materials, but in cases where materials can be sympathetically recycled, it can, in some people's opinion, be a positive enhancement to the structure.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.3.6: Change of use

Content Amplification	Teacher Guidance
<p>(b) Learners should be aware of the potential impact of refurbishing, recycling and re-use on individuals and/or communities:</p> <ul style="list-style-type: none"> <li>● refurbishment and re-use of buildings can help to retain the character/heritage of a built environment.</li> <li>● recycling of materials reduces waste and demand for new resources.</li> <li>● the re-use of building materials and components:               <ul style="list-style-type: none"> <li>● reduces waste</li> <li>● reduces demand for new resources</li> </ul> </li> </ul> <p>makes more affordable building materials and components available to the community.</p>	<p>It is important that learners are aware that a change of a building in a conservation area may require planning consent. In each case, all proposed changes should be discussed in advance with the local planning authority and the appropriate heritage organisations.</p>
<p>(c) Learners should be aware of:</p> <ul style="list-style-type: none"> <li>● the requirement for planning permission/adherence to</li> <li>● building regulations for significant changes of use to a building.</li> <li>● the importance of ensuring that the change of use does not negatively impact on:               <ul style="list-style-type: none"> <li>● stability of the structure, e.g. by demolishing an internal wall</li> <li>● the safety of occupants, e.g. fire safety and evacuation in a residential house converted to multiple occupation/self-contained flats.</li> </ul> </li> </ul>	<p>Learners should be aware that, House in Multiple Occupation (HMO) is a property that is shared by three or more tenants who are not members of the same family. Student accommodation and residential homes are included in this category and any building must have fire safety provisions and suitable evacuation routes.</p>

## EXPLANATION OF THE SPECIFICATION CONTENT

### 2.3.7 Changing practices

Content Amplification	Teacher Guidance
<p>(a) Learners should be aware:</p> <ul style="list-style-type: none"> <li>• of the design and construction of contemporary buildings, considering the materials used and their properties, including:               <ul style="list-style-type: none"> <li>• concrete</li> <li>• steel</li> <li>• glass</li> <li>• wood</li> <li>• thermal insulation materials</li> </ul> </li> <li>• that contemporary buildings may include heritage materials, structure and processes if specified by the client.</li> </ul>	
<p>(b) Learners should be aware of the design and construction of heritage buildings, considering the traditional materials used and their properties, including:</p> <ul style="list-style-type: none"> <li>• wood</li> <li>• brick and stone</li> <li>• slate, tile and thatch</li> <li>• lead</li> <li>• lime mortar and lime plaster</li> <li>• architectural metalwork (casting)</li> <li>• blacksmith metalwork (wrought iron).</li> </ul>	<p>Learners need to become aware that It is important that a historic building is not compromised by alterations such as:</p> <ul style="list-style-type: none"> <li>• insulation</li> <li>• changing roof levels</li> <li>• materials</li> <li>• removing historic plaster ceilings</li> <li>• altering the positioning of gutters</li> <li>• rainwater pipes.</li> </ul> <p>These type of alterations are likely to require consent if the building is listed.</p> <p>Any change of a building in a conservation area may require planning consent. In each case, all proposed changes should be discussed in advance with the local planning authority and the appropriate heritage organisations.</p>

# ASSESSMENT OF UNIT 3

## Unit 3: Exploring the built environment

Non-exam assessment (NEA): approximately 15 hours

25% of qualification

50 marks: 100 UMS

### Unit 3: Exploring the built environment

This non-exam assessment (NEA) is composed of a case study set by WJEC, shown in Appendix B of the specification.

Where possible, the case study should be based on learners' local environment in Wales. If this is not possible, when candidates' work is submitted for moderation, centres must provide an explanation why learners have investigated buildings or structures which are not based in their local environment.

The case study may be presented in a variety of ways, including:

- a word-processed A4 or A3 sized document
- a presentation created using PowerPoint or other application
- a blog
- an infographic

Within the case study, learners may include short and extended prose, digital images/photographs and/or annotated images/diagrams to suit the context 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.

The assessment objective weightings for Unit 3 are:

AO1	AO2	AO3
10%	5%	10%
20 marks	10 marks	20 marks

## FAQs:

### Can learners resit the Unit 3 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	3509U3
Welsh-medium	3509N3

### Is this assessment compulsory?

Yes.

**When can candidates submit the Unit 3 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 3.

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

No, although learners are reminded of the need for good English and orderly, clear presentation in their answers.

**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.

**Will the assessment objective weightings remain the same throughout the life of the specification?**

Yes.

**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.

**When should learners complete the Unit 3 assessment?**

NEA tasks may be completed and assessed at any suitable time during the course. However, centres need to ensure they have delivered the content needed for candidates to be able to access marks allocated to all aspects of the relevant NEA.

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

No.

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

Learners should spend approximately 15 hours on their NEA task for Unit 3.

**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?**

The work will be sampled by WJEC. Both the sample and the moderator details are made available when the internally assessed grades are entered for all candidates in the cohort.

### **How should learners make use of ICT?**

Learners are assessed in the use of ICT in presenting their findings of part (d) building maintenance and repair, and change of use.

### **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 3

Term	Definition
<b>Ergonomics</b>	The scientific study of people and their working conditions, especially done in order to improve effectiveness: <i>A specialist in ergonomics will work with the team designing the production line in our new factory.</i>
<b>Gantt chart</b>	A project management tool assisting in the planning and scheduling of projects of all sizes, although they are particularly useful for simplifying complex projects. <i>Project management timelines and tasks are converted into a horizontal bar chart, showing start and end dates.</i>
<b>Heritage</b>	Features belonging to the culture of a particular society, such as traditions, languages, or buildings, that were created in the past and still have historical importance: <i>These monuments are a vital part of the cultural heritage of South Wales.</i>
<b>HMO</b> (House in Multiple Occupation)	A house or other dwelling in which several different households are living, sharing facilities such as a kitchen or bathroom.
<b>POE</b>	The architectural process for finding out from all stakeholders about how buildings support productivity and wellbeing.
<b>RIBA Plan of Work 2013</b> (Royal Institute of Building Architects)	Organises the process of briefing, designing, constructing, maintaining, operating and using building projects into a number of key stages.