

SAMPLE ASSIGNMENT BRIEF

UNIT 5 - CREATE THE BUILT ENVIRONMENT: USING TOOLS



Construction and the Built Environment Higher (Level 2) Unit 5 Create the built environment: using tools (CBE2U5)

Sample Assignment Brief (Approximately twenty-four hours under controlled conditions)

Introduction

The purpose of this unit is to make you aware of the hazards and risks commonly encountered in constructing the built environment. It covers the appropriate selection and use of tools, materials and personal protective equipment (PPE) to perform craft activities. The unit also explores the career opportunities available in constructing the built environment.

This unit, alongside the others within the Level 2 Principal Learning in Construction and the Built Environment, has been designed to allow you the opportunity to develop a range of Personal, Learning and Thinking Skills (PLTS), and to demonstrate these on more than one occasion. This approach will allow you to build towards a full range of PLTS.

Learning Outcomes:

- 1 to understand health, safety and welfare issues associated with using construction equipment
- 2 to know how to select appropriate tools, materials, PPE and hand tool skills for particular tasks
- 3 to be able to work safely when using tools to perform craft tasks
- 4 to know how to plan a career in constructing the built environment.

Assignment brief

You will be expected to spend about **24 hours** on this internally assessed assignment.

Marking of the assessment will be determined by the criteria set out on the assessment grid. The unit is assessed through this centre set and marked assignment. Internal assessments are subject to moderation by our awarding body which is: AQA-City & Guilds.

Your assignment consists of **two** major parts including:

- 1 a report which should be a word processed A4 document and will be included in your portfolio. Photographs and other images to support your work may be included in your assignment report. Should you wish to include any drawings or sketches then they should be no larger than A3 sheets. If there is the opportunity to talk with or interview experienced construction personnel, you should ask them for their opinions, reflect on them and include them in the report to support and provide case studies for your work.

Each page of your portfolio should be numbered and include the following information:

- candidate name; candidate number; centre name and centre number.

- 2 design and undertake **three** practical tasks from the following selection:

Carpentry and joinery

- Frame - a simple square frame with a different joint at each corner; possible joints could include housing, through/corner halving, through/corner bridle through/haunched mortice and tenon.

OR

- Shelving - three 600 mm long shelves with end pieces all to be wall-mounted on shelf brackets in a single stack and appropriately jointed.

Bricklaying

- Brick wall - in stretcher bond, six bricks long and four courses high with one stopped end, constructed using lime mortar.

Painting and decorating

- Painting - old furniture, doors or windows to a gloss paint finish.

OR

- Decorating - hanging lining paper or woodchip paper to walls with no corners, light switches or sockets.

Building services crafts

- Electrical - wiring plugs and sockets and constructing simple lighting rigs with three fittings in parallel or a simple ring main with three sockets and tested on completion.

OR

- Plumbing - construction of a simple pipe rig with one capillary joint, one compression joint, one Tee junction and two 90° bends. Connection of hot and cold water taps and a trap to a sink and tested on completion.

Guidance on acceptable tolerances

- wood joints to be of a reasonable standard with a tolerance of $\pm 2\text{mm}$, shelving to be secure with shelves that are horizontal and brackets that are vertical
- bricks to be in line $\pm 3\text{mm}$ with a maximum plane face deviation of $\pm 3\text{mm}$, stopped end maximum of 3mm deviation from vertical
- limited painting defects such as misses, runs, sagging and curtaining; paper hung to a reasonable standard with limited number of bubbles and/or wrinkles, no gaps or overlaps $> 4\text{mm}$
- all wiring connections safe and correct, with light fittings and/or sockets securely mounted in regular arrays
- watertight joints and junctions, straight pipe runs, right-angle bends $\pm 5^\circ$, taps and traps fitted correctly.

Assignment Task:

The assignment task is in four parts

Part A

Undertake research and prepare a report that demonstrates the importance of health, safety and welfare on-site using at least **TWO** pieces of equipment as examples of safe working and operation. References should be made to the importance of preparing a method statement and undertaking risk assessments.

Part B

Using your chosen practical tasks in Part C identify and describe the correct tools and materials needed to complete the activities. Include descriptions, illustrations and photographs of the appropriate PPE required to be worn when undertaking the tasks.

Part C

Choose THREE practical tasks, from the list above and create and undertake them efficiently and safely to within the acceptable tolerances stated. On completion you should take pictures of your completed work as evidence that you undertook and achieved the tasks.

Part D

Undertake research and prepare a career plan of opportunities for craft persons working on housing developments indicating progression pathways into supervisory roles and project management. If you are able to interview site personnel use them as case study material in your report.

Weighting of assessment criteria topics

Assessment criteria topic	Weighting	Marks
1 Health, safety and welfare issues associated with construction equipment	25%	12
2 Selection of tools, materials, PPE and hand tool skills	25%	12
3 Working safely when using tools to perform craft tasks	37.5%	18
4 Career opportunities	12.5%	6
Total	100%	48

Assignment structure

A suggested assignment structure, which would allow you to meet the evidence requirements, may include the following steps:

Part 1 (assessment criteria 1)

- Explain the importance of health, safety and welfare on-site, and recognise and comply with good Health and Safety practices in the workshop.
- Identify a range of hazards and risks associated with natural and manufactured materials, hazardous substances (COSHH), working in confined spaces, working at height, working below ground, and the provision and use of work equipment.
- Select and use safe working methods to control these hazards and minimise risks as appropriate.

Part 2 (assessment criteria 2)

- Select and use the correct hand tools and materials for specific craft tasks.
- Identify and select correct PPE and access equipment for specific craft tasks.

Part 3 (assessment criteria 3)

- Identify and use hand tool skills and work safely to perform **three** craft tasks as chosen from the practical tasks in Carpentry and Joinery, Brickwork, Painting and Decorating or Building Services.

Part 4 (assessment criteria 4)

- Prepare a career development plan for potential craftsperson and indicate progression pathways into supervisory roles and site and project management.

Possible evidence to be included in your portfolio

You must produce evidence of achievement of the assessment criteria. The evidence must be based on the skills needed to use tools to perform simple construction craft tasks. In the assignment you will produce:

- 1 report on:
 - a the health, safety and welfare issues associated with the use of specified construction equipment
 - b the selection of appropriate tools, materials, PPE and hand tool skills
 - c a career development plan showing opportunities and progression routes available in the creation of the built environment

- 2 work safely when using tools to perform craft tasks. This should be evidenced by witness statements.

In order to attain a high mark in this unit, you must address all of the above. It may, however, be possible to achieve a pass mark without producing every one of the evidence requirements. A table showing how the assessment topics are weighted is included below.

The final report can be presented through whatever media are seen as suitable, as long as all of the evidence requirements are met and the task can be moderated by AQA-City & Guilds.

Personal, Learning and Thinking Skills (PLTS)

The list below is indicative of the way this unit supports the development of PLTS, as opposed to the achievement of PLTS that are possible through the assessment. The unit supports the development of more PLTS than are covered through the assessment criteria alone.

Alternative approaches could be selected.

Independent enquirers

- producing and interpreting risk assessments based on real life construction site situations

Creative thinkers

- asking questions of health, safety and welfare officers to extend their understanding of the important issues and good practices

Reflective learners

- reviewing their own tool skills, considering what they did well, what they did less well and how they could improve next time

Team workers

- carrying out practical tasks using tools in small groups

Self-managers

- working safely when using tools to carry out practical craft tasks

Effective participators

- producing and interpreting risk assessments and method statements when working safely as part of a group, and feeding back possible improvements to the method statement both during and after the task.

Assessment grid

Assessment criteria topic	Band 1	Band 2	Band 3
	The learner has:		
1 Health, safety and welfare issues associated with construction equipment	<p>0 – 4 marks</p> <p>Briefly explained a limited range of health, safety and welfare issues relating to construction.</p> <p>Identified and described a limited range of hazards and risks and selected appropriate safe methods of working.</p> <p>Complied with a limited range of good health, safety and welfare practices.</p>	<p>5 – 8 marks</p> <p>Explained a range of health, safety and welfare issues relating to construction.</p> <p>Identified and described a range of hazards and risks and selected appropriate safe methods of working.</p> <p>Complied with a range of good health, safety and welfare practices.</p>	<p>9 – 12 marks</p> <p>Explained a comprehensive range of health, safety and welfare issues.</p> <p>Identified and described an extensive range of hazards and risks and selected appropriate safe methods of working.</p> <p>Complied with a comprehensive range of good health, safety and welfare practices.</p>
2 Selection of tools, materials, PPE and hand tool skills	<p>0 – 4 marks</p> <p>Selected some of the correct tools, materials, equipment and hand tools skills needed for specific craft tasks.</p>	<p>5 – 8 marks</p> <p>Selected most of the correct tools, materials, equipment and hand tools skills needed for specific craft tasks.</p>	<p>9 – 12 marks</p> <p>Selected all, or nearly all, of the correct tools, materials, equipment and hand tools skills needed for specific craft tasks.</p>
3 Working safely when using tools to perform craft tasks	<p>0 – 6 marks</p> <p>Worked safely some of the time when using tools to perform craft tasks to a variable standard of competence, in teams when appropriate.</p>	<p>7 – 12 marks</p> <p>Worked safely most of the time when using tools to perform craft tasks to a reasonable standard of competence, in teams when appropriate.</p>	<p>13 – 18 marks</p> <p>Worked safely all, or nearly all, of the time when using tools to perform craft tasks to a high standard of competence, in teams when appropriate.</p>
4 Career opportunities	<p>0 – 2 marks</p> <p>Produced a superficial comparison of career opportunities in construction and the built environment.</p>	<p>3 – 4 marks</p> <p>Clearly compared and contrasted career opportunities in construction and the built environment.</p>	<p>5 – 6 marks</p> <p>Offered a precise and in-depth comparison of career opportunities in construction and the built environment.</p>