

Diploma in Bricklaying at SCQF Level 4 (6805-13)

February 2016 Version 2



Qualification at a glance

Subject area	Construction
City & Guilds number	6805
Age group approved	16-18, 19+
Entry requirements	None
Assessment	Multiple choice/assignment
Support materials	Centre handbook Assessor guidance Task manual
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	City & Guilds number
Diploma in Bricklaying at SCQF Level 4	6805-13

Version and date	Change detail	Section
V2 February 2016	Unit 201 amended	Units
	City & Guilds group statement amended	Useful contacts
	Phone numbers deleted	Useful contacts



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1 Introduction

This document tells you what you need to do to deliver the qualification:

Area	Description
Who is the qualification for?	It is for candidates who work or want to work as a Bricklayer in the construction sector.
What does the qualification cover?	<p>It allows candidates to learn, develop and practise the skills required for employment and/or career progression in Bricklaying.</p> <p>It covers the following skills:</p> <ul style="list-style-type: none">• Carrying out Blocklaying activities• Carrying out Bricklaying activities• Carrying out Cavity Walling activities• Contribute to Setting Out and Building of Masonry Structures up to Damp Proof Course
Is the qualification part of a framework or initiative?	No
What opportunities for progression are there?	<p>It allows candidates to progress into employment or to the following City & Guilds qualifications:</p> <ul style="list-style-type: none">• Diploma in Bricklaying at SCQF Level 5

Structure

To achieve the **Diploma in Bricklaying at SCQF Level 4 (6805-13)**, learners must achieve **41** credits from the mandatory units below.

City & Guilds unit number	Unit title	Credit value
Unit 101	Principles of building construction, information and communication	6
Unit 102	Contribute to setting out and building of masonry structures up to damp proof course	3
Unit 103	Carrying out blocklaying activities	6
Unit 104	Carrying out bricklaying activities	8
Unit 105	Carrying out cavity walling activities	11
Unit 201	Health, safety and welfare in construction	7



2 Centre requirements

Approval

The approval process for Construction qualifications is available at our website. Please visit www.cityandguilds.com/construction for further information.

Resource requirements

Physical resources and site agreements

Centres will have well equipped workshops with a comprehensive range of hand and portable power tools that meet current industry standards. All powered equipment should be well maintained and PAT certified. Centres will have special designated areas within their Bricklaying workshop (cubicles or project areas) allowing candidates to practice the requirements of the units and carry out the Practical Assignments.

Centre staffing

All staff who assess (tutor/deliver) these qualifications must:

- have recent relevant experience in the specific area they will be teaching;
- be technically competent in the area for which they are delivering training and/or have experience of providing training;
- have a CV available demonstrating relevant experience and any qualifications held.

All staff who quality assure these qualifications must:

- have a good working knowledge and experience within the construction industry;
- have an established strategy and documentary audit trail of internal quality assurance;
- have a good working knowledge of quality assurance procedures;
- have a CV available demonstrating relevant experience and any qualifications held.

While the Assessor/Verifier (A/V) units/TAQA are valued as qualifications for centre staff, they are not currently a requirement for these SCQF qualifications. However, we encourage trainers and assessors to qualify to the current TAQA standard.

Continuing professional development (CPD)

Centres must support their staff to ensure that they have current knowledge of the occupational area, that delivery, mentoring, training, assessment and verification is in line with best practice, and that it takes account of any national or legislative developments.

Candidate entry requirements

City & Guilds does not set entry requirements for this qualification. However, centres must ensure that candidates have the potential and opportunity to gain the qualification successfully.

Age restrictions

City & Guilds cannot accept any registrations for candidates under 16 as this qualification is not approved for under 16s.



3 Delivering the qualification

Initial assessment and induction

An initial assessment of each learner should be made before the start of their programme to identify:

- if the learner has any specific training needs,
- support and guidance they may need when working towards their qualification
- any units they have already completed, or credit they have accumulated which is relevant to the qualification
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the learner fully understands the requirements of the qualification, their responsibilities as a learner, and the responsibilities of the centre. This information can be recorded on a learning contract.

Support materials

The following resources are available for this qualification:

Description	How to access
Assessor guidance	www.cityandguilds.com
Task Manual	www.cityandguilds.com
Textbook	Can be ordered from Walled Garden, via www.cityandguildsbookshop.com or from your Business Manager
Qualification approval form	www.cityandguilds.com/construction
SmartScreen	www.smartscreen.co.uk



4 Assessment

Unit	Title	Assessment method	Where to obtain assessment materials
101	Principles of building construction, information and communication	City & Guilds e-volve multiple choice test. The test covers all of the knowledge in the unit.	Examinations provided on e-volve.
102	Contribute to setting out and building of masonry structures up to damp proof course	Multiple choice question paper, covering knowledge outcomes. Practical assignment, covering performance outcomes. Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	www.cityandguilds.com
103	Carrying out blocklaying activities	Multiple choice question paper, covering knowledge outcomes. Practical assignment, covering performance outcomes. Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	www.cityandguilds.com

Unit	Title	Assessment method	Where to obtain assessment materials
104	Carrying out bricklaying activities	<p>Multiple choice question paper, covering knowledge outcomes.</p> <p>Practical assignment, covering performance outcomes.</p> <p>Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.</p>	www.cityandguilds.com
105	Carrying out cavity walling activities	<p>Multiple choice question paper, covering knowledge outcomes.</p> <p>Practical assignment, covering performance outcomes.</p> <p>Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.</p>	www.cityandguilds.com
201	Health, safety and welfare in construction	<p>City & Guilds e-volve multiple choice test.</p> <p>The test covers all of the knowledge in the unit.</p>	Examinations provided on e-volve.

Test specifications

The way the knowledge is covered by each test is laid out in the tables below:

Test 1: Unit 101 Principles of building construction, information communication

Duration: 70 minutes

Unit	Outcome	Number of questions	%
101	1 Know how to identify information used in the workplace	7	20
	2 Know about environmental consideration in relation to construction	2	5.5
	3 Know about construction of foundations	4	11.5
	4 Know about construction of internal and external walls	8	23
	5 Know about construction of floors	4	11.5
	6 Know about construction of roofs	6	17
	7 Know how to communicate in the workplace	4	11.5
	Total	35	100

Test 2: Unit 102 Contribute to setting out and building of masonry structures up to damp proof course

Duration: 30 minutes

Unit	Outcome	Number of questions	%
102	1 Know how to contribute to setting out and building masonry structures up to damp proof course	20	100
	Total	20	100

Test 3: Unit 103 Carrying out blocklaying activities

Duration: 40 minutes

Unit	Outcome	Number of questions	%
103	1 Know how to prepare for blocklaying activities	13	65
	3 Know how to use dense concrete and lightweight insulation blocks to build block walling	7	35
	Total	20	100

Test 4: Unit 104 Carrying out bricklaying activities
Duration: 50 minutes

Unit	Outcome	Number of questions	%
104	1 Know how to prepare for bricklaying activities	15	75
	3 Know how to build brick walling, returns and junctions in half brick stretcher bond	5	25
Total		20	100

Test 5: Unit 105 Carrying out cavity walling activities
Duration: 70 minutes

Unit	Outcome	Number of questions	%
105	1 Know how to prepare for building cavity walling	14	70
	3 Know how to build straight cavity walling and return corners	6	30
Total		20	100

Test 6: Unit 201 Health, safety and welfare in construction
Duration: 1 hour

Unit	Outcome	Number of questions	%
201	1 Know the health and safety regulations, roles and responsibilities	7	17.5
	2 Know accident and emergency reporting procedures and documentation	5	12.5
	3 Know how to identify hazards in the workplace	7	17.5
	4 Know about health and welfare in the workplace	3	7.5
	5 Know how to handle materials and equipment safely	2	5
	6 Know about access equipment and working at heights	3	7.5
	7 Know how to work with electrical equipment in the workplace	4	10
	8 Know how to use personal protective equipment (PPE)	5	12.5
	9 Know the cause of fire and fire emergency procedures	4	10
Total		40	100



5 Units

Structure of units

These units each have the following:

- City & Guilds reference number
- title
- level
- credit value
- unit aim
- learning outcomes which are comprised of a number of assessment criteria

Range explained

Range gives further scope on what areas within an assessment criteria must be covered. The range in a unit **must** be taught to learners and parts of the range will be assessed.

Glossary of terms

The following key words and terms are used in the units.

Term	Definition
Aggregate	The course material (usually gravel) used in mixing concrete
Air Brick	A perforated building block to allow ventilation through walls
Arris	Any straight edge of a brick formed by the junction of two faces
Ballast	Mixture of sand and coarse gravel.
Batching	The accurate proportioning of materials to produce a specified mix
Bed	mortar upon which the brick is laid or bedded
Bedding	The process of laying in position a brick, piece of stonework
Bed Joint	A horizontal joint.
Block-Bonding	Used in compound walls for binding the two skins together by fitting several courses of brickwork of one skin into a different number of courses of the other Bonding wall into brick indent.
Bolster	A broad bladed chisel used for cutting bricks
Bond / Bonding	The arrangement or pattern of laying bricks and blocks to spread the load through the wall, also for strength and appearance
Brick trowel	Used for spreading and rolling mortar; also known as a walling trowel.
Broken Bond	The use of part bricks to make good a bonding pattern where full bricks will not fit in

British Standards	The British Standards Institute (BSI) develops and publishes standards in the UK
Building Line	The line normally set by the Local Authority indicating the outer boundary for a building, usually measured from the kerb. A building should never be built in front of the building line. See also Frontage Line.
Building Regulations	These are a series of documents that set out legal requirements for the standards of building work
Cavity Walling	Walling built in two separate skins (usually of different materials) with a void held together by wall ties.
Codes of Practice	The Approved Code of Practice (ACoP) gives practical advice for those involved in construction work
Common Bricks	Bricks of medium quality used for ordinary walling work where no special face finish is required.
Concrete	Composed of cement, sand and stone, of varying size and in varying proportions.
Damp Proof Course (DPC)	A layer or strip of impervious material placed in a joint of a wall to prevent the passage of water
Damp Proof Membrane (DPM)	A layer or sheet of impervious material within or below a floor or vertically within a building to prevent the passage of mortar
Datum	A datum is a fixed point for reference levels from, they may be permanent Ordnance Bench Marks (OBMs) or Temporary Bench Marks (TBMs)
Dimensions	Measurements
Engineering Bricks	Hard dense bricks of regular size used for carrying heavy loads (e.g. in bridge buildings, heavy foundations, etc.).
Face plane	The corner-to-corner (diagonally) check for deviations to the face of a wall
Facing Bricks	Brick of better quality suitable for use on face of walling where a good appearance is required
Fair Face	Indicating face work of neat appearance.
Frog	The indentation in a brick.
Footings	Projecting courses at the base of a wall
Foundation	Used to spread the load of a building to the sub-soil
Frontage Line	The front line of a building which can be built on or behind the building line (see also Building Line), but never in front of it.
Gauge	The vertical setting out of brick courses
Gauge Box	A bottomless box used for measuring material to be mixed together to form concrete or mortar
Hatchings	Patterns used on a drawing to identify different materials to meet the standards BS1192
Header Face	The end face of a brick.
Industrial standards	Minimum standards of quality of completed work

Jointing	Making a finish to the mortar faces as work proceeds, i.e. half round jointing
Jointing iron	Pole jointer (NI); used to form half round joints
Jointer	Tool used for making a jointed finish
Junctions	Methods of joining walls set at angles, together
Leaf	One of two parallel walls that are tied together as a cavity wall
Levelling	Making sure that two points are at the same height
Lime	A fine powdered material traditionally used in mortars
Line	A string used to guide the bricks to make them straight Also a straightness of the brickwork
Method Statement	A description of the intended method of carrying out a task, often linked to a risk assessment
Mortar	A mixture of sand, cement and/or lime and water used for laying bricks
Plasticiser	Used to make mortar workable
Plumb	The verticality of brickwork
Perpends or Perps	The cross joints which show vertical on the face of a brick wall.
Pointing	Applying a finish to the mortar faces, a sequence of activities post-building, could also be re-pointing as a repair job. I.e. weather struck, tuck etc.
Profiles	Patent guides for lining in brickwork
Quoins	An internal or external corner of walling.
Rake	An angle of inclination
Racking Back	Stepping back successive courses of brickwork for building up at a later stage
Storey rod	For floor levels, cill height, head height; also known as a height stick.

Unit 101

Principles of building construction, information and communication

Level:	4
Credit value:	6
Aim:	<p>The aim of this unit is to provide the learner with the knowledge of building methods and construction technology in relation to:</p> <ul style="list-style-type: none">• Understanding a range of building materials used within the construction industry and their suitability to the construction of modern buildings• Processes for disseminating information• Basic concepts of effective communication.

Learning outcome
The learner will: 1. know how to identify information used in the workplace
Assessment criteria
The learner can: 1.1 identify information sources used in construction 1.2 identify the scale to use with drawings in relation to BS1192 1.3 identify symbols and hatchings from drawings in relation to BS1192 1.4 state the purpose of datums used in construction.

Range
Information sources Drawings, schedule, specifications, programme of work
Drawings Block plan, site plan, detail, section
Symbols WC, sink, bath, door, window
Hatchings Brickwork, timber (wrot and unwrot), blockwork, concrete, hardcore, sub soil/earth, insulation, damp proof course (DPC),damp proof membrane (DPM)

Learning outcome
The learner will: 2. know about environmental considerations in relation to construction
Assessment criteria
The learner can: 2.1 state features of a building that improves efficiency 2.2 state the importance of waste management .

Range
Features Design features that reduce consumption of water and energy: insulation and water harvesting/conservation
Waste management Reduce, reuse, recycle.

Learning outcome
The learner will: 3. know about construction of foundations
Assessment criteria
The learner can: 3.1 identify types of foundations 3.2 identify materials used in concrete foundations 3.3 state the information required to work out the quantity of materials used in a foundation 3.4 calculate volume of concrete used in single strip foundation.

Range
Types of foundations Strip, raft, pile, pad
Materials Course aggregate, fine aggregate, cement, water, steel reinforcement
Information Specification, dimensions

Learning outcome
The learner will: 4. know about construction of internal and external walls
Assessment criteria
The learner can: 4.1 identify types of internal and external walls 4.2 identify external walling materials and components 4.3 identify internal walling materials and components 4.4 calculate the area of a wall 4.5 identify materials and mix ratios used in mortar

- 4.6 identify **wall finishes**
 4.7 state **paint systems** for new plaster.

Range

Types

Solid, cavity, timber frame, stud

External walling materials and components

Brick, block, timber, insulation, Damp proof course (DPC), wall ties,

Internal walling materials and components

Stud (timber, metal), low density blockwork, plasterboard, plaster

Materials

Sand, lime, plasticiser, cement

Wall finishes

Plaster, render

Paint systems

mist-coat/seal, two coats of emulsion

Learning outcome

The learner will:

5. know about construction of floors

Assessment criteria

The learner can:

- 5.1 identify **types of floors**
 5.2 identify **components of solid concrete ground floors**
 5.3 identify **components of timber** floors.

Range

Types of floors

Solid concrete ground, timber (ground, upper)

Components of solid concrete ground floors

Hardcore, blinding sand, damp proof membrane (DPM), insulation, oversite concrete, screed

Components of timber

Oversite concrete, sleeper walls, wall plates, DPC, joists, insulation, floor covering

Learning outcome
The learner will: 6. know about construction of roofs
Assessment criteria
The learner can: 6.1 identify types of roofs 6.2 identify components of roofs 6.3 state paint systems for timber 6.4 calculate the linear quantity of fascia board 6.5 state the importance of thermal insulation in a roof.

Range
Types of roofs Gable-ended, flat, hipped, lean-to
Roof components Ridge, batten/lathe, fascia, wall plate, felt, slate/tile, truss rafters, insulation, joists, wall plate straps.
Paint systems for timber Knotting, prime, undercoat, gloss, (water-based and solvent-based)

Learning outcome
The learner will: 7. know how to communicate in the workplace
Assessment criteria
The learner can: 7.1 list job roles within construction 7.2 state information needed when recording a message 7.3 list benefits of clear and effective communication 7.4 list benefits of positive communication with colleagues and others 7.5 identify communication methods used to relay information to colleagues.

Range
Job roles Professional, technician, trade, general operative
Information Date, time, content, contact name and details
Benefits (AC 7.3) Preventing errors, safe working, improved productivity
Benefits (AC 7.4) Improved motivation, avoid conflict, complying with equality and diversity
Communication methods

Unit 102 **Contribute to setting out and building of masonry structures up to damp proof course**

Level:	4
Credit value:	3
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to enable them contribute to the setting out and building of masonry structures up to damp proof course.

Learning outcome
The learner will: 1. know how to contribute to setting out and building masonry structures up to damp proof course.
Assessment criteria
The learner can: 1.1 describe different types of drawings commonly used 1.2 identify different scales commonly applied to drawings used in setting out and building basic masonry structures 1.3 identify methods of reading and taking off measurements from drawings 1.4 state the reasons for locating existing services before setting out activities commence 1.5 state the reasons for site clearance before setting out activities commence 1.6 describe the purpose of the building line 1.7 describe methods of setting out right angled corners 1.8 describe the importance of checking measurements as work proceeds 1.9 list information sources associated with setting out and building basic masonry structures 1.10 state methods for reporting inaccuracies in information sources 1.11 identify methods used to transfer levels from datum and the importance of datum heights 1.12 identify methods used to transfer setting out information onto foundation concrete 1.13 describe the importance of protecting the setting out work

- 1.14 list **resources** required for setting out, levelling and building basic masonry structures
- 1.15 state **methods** for carrying out checks on resources used for levelling.

Range

Drawings (commonly used in setting out):

Block plan, location plan, site plan, sections through, detail.

Scales

1:2500, 1:1250, 1:500, 1:100, 1:50, 1:10, 1:5.

Methods (AC1.3)

Reading drawing dimensions, using a scale rule.

Services

Electricity, gas, water, drainage, telecoms.

Methods (AC1.7)

3:4:5 ratio, builder's square, optical/laser square.

Information sources

Method statement, risk assessment, working drawings, job sheets, specifications, schedules, Building Regulations.

Methods (AC1.10)

Verbal, written.

Methods (AC1.11)

Straight edge and spirit level, optical/laser level and staff.

Resources

Laser level and detector, ranging lines, profiles, spray paint/sand line, tape measure, gauge rod/lath, straight edge, spirit level, builder's square, setting out pins/pegs, working drawings, calculator.

Methods (AC1.15)

Visual inspection, reverse spirit level check.

Learning outcome
The learner will: 2. be able to contribute to setting out and building masonry structures up to damp proof course.
Assessment criteria
The learner can: 2.1 confirm written information to establish work to be carried out 2.2 select correct resources required to carry out work 2.3 assist with setting out of building masonry structures up to damp proof course 2.4 assist with checking measurements for building masonry structures up to damp proof course 2.5 assist with the construction of building masonry structures up to damp proof course 2.6 follow current environmental and relevant health and safety legislation.

Range
Written information (AC2.1) Drawings, specifications.
Resources Laser level and detector, ranging lines, profiles, spray paint/sand line, tape measure, gauge rod/lath, straight edge, spirit level, builder's square, setting out pins/pegs, working drawings, calculator.
Setting out Setting out right angles, transfer of levels from site datum.
Measurements Check levels, check diagonals.
Construction Plumbing from ranging lines, marking concrete base: spray paint, chalk, mortar screed.

Unit 103

Carrying out blocklaying activities

Level:	4
Credit value:	6
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to enable them to carry out blocklaying using different types of block.

Learning outcome
The learner will: 1. know how to prepare for blocklaying activities
Assessment criteria
The learner can: 1.1 list common hazards associated with blocklaying activities 1.2 interpret drawings related to blocklaying activities 1.3 state the different scales commonly applied to drawings used in blocklaying 1.4 list information sources associated with blocklaying activities 1.5 list the resources required for blocklaying activities.

Range
Blocklaying activities Stacking blocks, mixing mortar, cutting materials, lifting and carrying materials.
Drawings Hatchings, plan views, elevations, cross-sections, specifications.
Scales 1:100, 1:50, 1:10.
Information sources Working drawings and instructions, working safety policy/procedures, specification and schedule, method statement, risk assessment, manufacturer's instructions, job sheet, Building Regulations.
Resources Materials: dense blocks, lightweight blocks, mortar, plasticiser. Tools: brick trowel, pointing trowel, lump hammer, bolster chisel, scutch hammer, line and pins, corner blocks, tingle plate, spirit level,

boat/pocket level, tape measure, builder's square, tingle plate, brick hammer, jointing iron, storey rod, gauge lath/rod.

Equipment: bucket, sack barrow, wheelbarrow, sweeping brush, hand brush, shovel, straight edge.

Learning outcome

The learner will:

2. be able to prepare for blocklaying activities in accordance with work specifications

Assessment criteria

The learner can:

- 2.1 confirm instructions to establish blocklaying activities to be carried out
- 2.2 produce **checklists of resources** required to carry out blocklaying activities
- 2.3 calculate **quantities of resources** required for blocklaying activities
- 2.4 **check suitability of resources** for blocklaying activities
- 2.5 set out to build straight block walls, return internal and external corners and junctions
- 2.6 follow current environmental and relevant health and safety legislation.

Range

Checklist of resources

Tools and equipment, dense and lightweight blocks, personal protective equipment (PPE).

Quantities of resources

Mortar, blocks, wastage (percentages), area and linear measurements.

Check suitability of resources

Materials meet the specification and are free from defects, tools and equipment are maintained correctly and safe to use, personal protective equipment (PPE) is available used and maintained correctly.

Learning outcome

The learner will:

3. know how to use dense concrete and lightweight insulation blocks to build block walling

Assessment criteria

The learner can:

- 3.1 describe **safe working practices** when building block walling
- 3.2 state **methods** of establishing bonds for block walling
- 3.3 state **methods** used to cut and prepare materials
- 3.4 identify **hand tools and equipment** for building block walling
- 3.5 identify the **sequence** of work and **recommended walling heights** built at any one time
- 3.6 describe the reasons for carrying out **checks** to confirm that work meets specifications.

Range**Safe working practices**

Height limits, handling, stacking, cutting.

Methods (AC3.2)

Measuring, half bond, broken bond, reverse bond, dry bonding.

Methods (AC3.3)

Hammer and bolster, masonry saw, block splitter, tape measure.

Hand tools and equipment

Brick trowel, pointing trowel, lump hammer, bolster chisel, scutch hammer, line and pins, corner blocks, tingle plate, spirit level, boat/pocket level, tape measure, builder's square, tingle plate, brick hammer, jointing iron, storey rod, gauge lath/rod, bucket, sack barrow, wheelbarrow, sweeping brush, hand brush, shovel, straight edge.

Sequence

Gauge, level, plumb.

Recommended walling heights

From method statement and risk assessment, to manufacturer's guidelines, consideration of weather conditions.

Checks

Materials meet the specification and are free from defects; selected, used and maintained tools correctly and safely; selected, used and maintained PPE correctly; block selection, mortar ratio, mortar consistency, gauge, level, plumb, range, square.

Learning outcome

The learner will:

4. be able to use dense and lightweight insulation blocks to build block walling to given specifications

Assessment criteria

The learner can:

- 4.1 confirm instructions to establish blocklaying activities to be carried out
- 4.2 prepare and cut **blocks** by hand
- 4.3 use blocks to build straight block walls and return corners and junctions
- 4.4 produce joint **finishes** to block walling
- 4.5 use correct access equipment
- 4.6 follow current environmental and relevant health and safety legislation.

Range**Blocks**

Dense, lightweight.

Finishes

Half round, flush.

Unit 104

Carrying out bricklaying activities

Level:	4
Credit value:	8
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to enable them to set out, cut bricks and build brick walls

Learning outcome
The learner will: 1. know how to prepare for bricklaying activities
Assessment criteria
The learner can: 1.1 list common hazards associated with bricklaying activities 1.2 interpret drawings related to bricklaying activities 1.3 state the different scales commonly applied to drawings used in bricklaying 1.4 list information sources associated with bricklaying activities 1.5 list the resources required for bricklaying activities.

Range
Bricklaying activities Stacking bricks, mixing mortar, cutting materials, lifting and carrying materials.
Drawings Hatchings, plan views, elevations, cross-sections, specifications.
Scales 1:100, 1:50, 1:10.
Information sources Working drawings and instructions, working safety policy/procedures, specification and schedule, method statements, risk assessment, manufacturer's instructions, job sheet, Building Regulations.
Resources Materials: facing bricks, common bricks, engineering bricks, mortar, plasticiser

Tools: brick trowel, pointing trowel, lump hammer, bolster chisel, scutch hammer, line and pins, corner blocks, spirit level, boat/pocket level, tape measure, builder's square, tingle plate, brick hammer, jointing iron, gauge lath/rod

Equipment: bucket, brick tongs/grabs, sack barrow, wheelbarrow, sweeping brush, hand brush, shovel, straight edge.

Learning outcome
The learner will: 2. be able to prepare for bricklaying activities in accordance with work specifications
Assessment criteria
The learner can: 2.1 confirm instructions to establish bricklaying activities to be carried out 2.2 produce checklists of resources required to carry out bricklaying activities 2.3 calculate quantities of resources required for bricklaying activities 2.4 check suitability of resources for bricklaying activities 2.5 set out to build straight brick walls, return internal and external corners and junctions 2.6 follow current environmental and relevant health and safety legislation.

Range
Checklist of resources Tools and equipment, materials including the correct type of bricks, personal protective equipment (PPE), materials meet the specification and are free from defects.
Calculate Area and linear measurements, percentages, mortar.
Check on suitability of resources Materials meet the specification and are free from defects, tools and equipment are maintained correctly and safe to use, personal protective equipment (PPE) is available used and maintained correctly.

Learning outcome
The learner will: 3. know how to build brick walling, returns and junctions in half brick stretcher bond
Assessment criteria
The learner can: 3.1 state methods of establishing bond for half-brick walling and return junctions 3.2 state methods of cutting bricks by hand 3.3 identify different types of hand tools and equipment for building half brick walls 3.4 describe the importance of carrying out quality checks .

Range
Methods (AC3.1) Measuring, dry bonding, reverse bonding, broken bond.
Methods (AC3.2) Lump hammer and bolster chisel, brick hammer, scutch hammer.
Hand tools and equipment Brick trowel, pointing trowel, lump hammer, bolster chisel, scutch hammer, line and pins, corner blocks, spirit level, boat/pocket level, tape measure, builder's square, tingle plate, brick hammer, jointing iron, gauge lath/rod, storey rod, bucket, brick tongs/grabs, sack barrow, wheelbarrow, sweeping brush, hand brush, shovel, straight edge.
Quality checks materials meet the specification and are free from defects; selected, used and maintained tools correctly and safely; selected, used and maintained PPE correctly; brick selection, mortar ratio, mortar consistency, gauge, level, plumb, range, full mortar joints, plumb perps, square.

Learning outcome
The learner will: 4. be able to use bricks to build walling
Assessment criteria
The learner can: 4.1 confirm instructions to establish bricklaying activities to be carried out 4.2 prepare and cut bricks by hand 4.3 use bricks to build straight walls and return corners and junctions 4.4 produce joint finishes to half-brick walls 4.5 use correct access equipment

4.6 follow current environmental and relevant health and safety legislation.

Range

Cut bricks by hand

Hammer and bolster.

Build straight walls and return corners and junctions

Straight walls, junctions- alternative bonding arrangements, internal quoin, external quoin.

Finshes

Rounded or tooled (bucket handle), weather struck, flush, recessed.

Unit 105

Carrying out cavity walling activities

Level:	4
Credit value:	11
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to enable them to carry out cavity walling

Learning outcome
The learner will: 1. know how to prepare for building cavity walling
Assessment criteria
The learner can: 1.1 list resources required for erecting cavity walling 1.2 state the characteristics of the resources required for building cavity walling 1.3 describe reasons for carrying out checks to confirm that the work meets specification 1.4 state the methods of carrying out checks on resources required for building cavity walling 1.5 describe the components of a cavity wall 1.6 state different types of walling materials 1.7 state different tools and equipment required for the work 1.8 state methods of setting out to build cavity walls.

Range
Resources (AC1.1) Wall ties, DPC, airbrick, cavity/airbrick liner, bricks and blocks, insulation.
Resources (AC1.2) Bricks and blocks (clay, concrete, sand lime, common, facing and engineering brick, lightweight or dense concrete block), wall ties Damp Proof Course (DPC), airbricks, cavity/airbrick liner, insulation, mortars.
Checks Visual, suitability, conforms to drawing/specification, manufacturer's instructions.
Components

Insulation, bricks, blocks, wall ties, mortar, DPC (vertical and horizontal), airbrick, cavity/airbrick liner (fixed, telescopic).

Types

Bricks, lightweight and dense blocks, local materials.

Tools and equipment

Brick trowel, pointing trowel, lump hammer, bolster chisel, scutch hammer, line and pins, corner blocks, spirit level, boat/pocket level, tape measure, builder's square, tingle plate, brick hammer, jointing iron, gauge lath/rod, storey rod, bucket, brick tongs/grabs, sack barrow, wheelbarrow, sweeping brush, hand brush, shovel, straight edge.

Methods

Set out position of wall, load out bricks and blocks, position of mortar board and mortar, select components ready for use.

Learning outcome

The learner will:

2. be able to prepare to build cavity walling

Assessment criteria

The learner can:

- 2.1 confirm instructions to establish cavity walling activities
- 2.2 produce **checklists of resources** required to build cavity walls
- 2.3 **calculate** quantities of resources required for cavity walls
- 2.4 **check suitability of resources** for cavity walling
- 2.5 set out to build cavity walls in accordance with the work specification
- 2.6 prepare resources for cavity walling activities in accordance with legislation and official guidance
- 2.7 follow current environmental and relevant health and safety legislation.

Range

Checklist of resources

Tools and equipment, materials including the correct type of bricks, blocks DPC and wall ties, personal protective equipment (PPE)

Calculate

Area and linear measurements, percentages, mortar, brick, blocks.

Checks on suitability of resources

Materials meet the specification and are free from defects, tools and equipment are maintained correctly and safe to use, personal protective equipment (PPE) is available used and maintained correctly.

Learning outcome

The learner will:

3. know how to build straight cavity walling and return corners

Assessment criteria

The learner can:

- 3.1 state the **methods** used to prepare and cut components to given specifications by hand
- 3.2 state the **tools** and **equipment** required to build cavity walls
- 3.3 state the position and purpose of a **horizontal damp proof course** in cavity walling
- 3.4 state the **methods** used to maintain quality when building cavity walling.

Range

Methods (AC3.1)

Measure, mark, cut.

Tools

Brick trowel, pointing trowel, lump hammer, bolster chisel, scutch hammer, line and pins, corner blocks, spirit level, boat/pocket level, tape measure, builder's square, tingle plate, brick hammer, jointing iron, craft knife, gauge lath/rod, storey rod.

Equipment

Bucket, brick tongs/grabs, sack barrow, wheelbarrow, sweeping brush, hand-brush, shovel, straight edge.

Horizontal damp proof course

Cavity trays, weep holes.

Methods (AC3.4)

Selection, position and spacing of wall ties, check materials meet the specification and are free from defects; select, use and maintain tools correctly and safely; brick selection, ensure full joints/air tightness, maintain correct cavity size, gauge, level, plumb, range, plumb perps, gauge mortar, maintain a clean cavity.

Learning outcome

The learner will:

4. be able to build straight cavity walling and return corners

Assessment criteria

The learner can:

- 4.1 confirm **instructions** to establish the work to be carried out
- 4.2 **prepare and cut** bricks, blocks and components to given specifications by hand
- 4.3 **transfer** horizontal and vertical datum points
- 4.4 build straight **cavity walling** and **return corners** correctly to given work instructions and specifications
- 4.5 produce joint **finishes** to cavity walling to given specifications
- 4.6 use correct access equipment
- 4.7 follow current environmental and relevant health and safety legislation.

Range**Instructions**

Verbal, written.

Prepare and cut

Hammer and bolster, masonry saw, block splitter.

Transfer

Straight edge and spirit level, tape, gauge lath (storey rod).

cavity walling

stopped ends
damp proof course
wall ties

return corners

internal
external

Finshes

Half round, weather struck, flush, recessed.

Level:	5
Credit value:	7
Aim:	The aim of this unit is to provide the learner with the knowledge to carry out safe working practices in construction, in relation to sourcing relevant safety information and using the relevant safety procedures at work

Learning outcome
The learner will:
1. know the health and safety regulations, roles and responsibilities
Assessment criteria
The learner can:
1.1 identify health and safety legislation relevant to and used in the construction environment
1.2 state employer and employee responsibilities under the Health and Safety at Work Act (HASWA)
1.3 state roles and responsibilities of the Health and Safety Executive (HSE)
1.4 identify organisations providing relevant health and safety information
1.5 state the importance of holding on-site safety inductions and toolbox talks.

Range
Health and safety legislation
Health and Safety at Work Act, Reporting Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), Control of Substances Hazardous to Health (COSHH), Construction, Design and Management (CDM) regulations , Provision and Use of Work Equipment Regulations (PUWER), manual handling operations Regulations, Personal Protective Equipment (PPE) at Work Regulations, Work at Height Regulations, Control of Noise at Work Regulations, Control of Vibration at Work Regulations , Electricity at Work Regulations, Lifting operations and Lifting Equipment Regulations (LOLER)
Employer responsibilities
Safe working environment, adequate staff training, health and safety information, site inductions, toolbox talks, risk assessment, supervision, PPE, reporting hazards, accidents and near misses,

sections 2 to 9 of Health and Safety at Work Act, CDM reg's, construction phase plans, welfare, display public liability Insurance and health and safety law poster.

Employee responsibilities

Working safely, working in partnership with the employer, reporting hazards, accidents and near misses, following organisational procedures as per Sections 2 to 9 of Health and Safety at Work Act.

Roles and responsibilities:

Enforcement (including fees for intervention), legislation and advice, inspection, investigation eg site investigations.

Organisations

Health and Safety Executive (HSE) website, Institute of Occupational Safety and Health, British Safety Council, 'manufacturer', ROSPA.

Learning outcome

The learner will:

- 2. know accident and emergency reporting procedures and documentation

Assessment criteria

The learner can:

- 2.1 state legislation used for reporting accidents
- 2.2 state major **types of emergencies** that could occur in the workplace
- 2.3 identify reportable injuries, diseases and dangerous occurrences as per RIDDOR
- 2.4 state main types of **records** used in the event of an accident, emergency and near miss and reasons for reporting them
- 2.5 identify **authorised personnel** involved in dealing with accident and emergency situations
- 2.6 state **actions** to take when discovering an accident.

Range

Types of emergencies

Fires, security incidents, gas leaks.

Records:

Accident book, first aid records, organisational records and documentation.

Authorised personnel

First aiders, supervisors/managers, health and safety executive, emergency services, safety officer.

Actions

Area made safe, call for help, emergency services.

Learning outcome
The learner will: 3. know how to identify hazards in the workplace
Assessment criteria
The learner can: 3.1 state the importance of good housekeeping 3.2 state reasons for risk assessments and method statements 3.3 identify types of hazards in the workplace 3.4 state the importance of the correct storage of combustibles and chemicals on site 3.5 identify different signs and safety notices used in the workplace.

Range
Good housekeeping: Cleanliness, tidiness, use of skips and chutes, segregation of materials, clear access to fire escapes, clear access to fire extinguishers.
Types of hazards: Fires, slips, trips and falls, hazardous substances (relating to inhalation, absorption, exposure, ingestion, cross-contamination), electrical, asbestos, manual handling, plant and vehicle movement, adverse weather.
Signs and safety notices: Prohibition, mandatory, warning, safe condition, supplementary.

Learning outcome
The learner will: 4. know about health and welfare in the workplace
Assessment criteria
The learner can: 4.1 identify requirements for welfare facilities in the workplace as per Construction Design Management (CDM) 4.2 state health effects of noise and precautions that can be taken 4.3 state risks associated with drugs, alcohol and medication which could affect performance in the workplace.

Range
Precautions Reducing noise at source, PPE, isolation, exposure time.
Risks Reduced risk perception, loss of concentration, balance problems, absenteeism and reduced productivity.

Learning outcome
The learner will: 5. know how to handle materials and equipment safely
Assessment criteria
The learner can: 5.1 identify legislation relating to safe handling of materials and equipment 5.2 state procedures for safe lifting and manual handling activities in accordance with guidance and legislation 5.3 state the importance of using lifting aids when handling materials and equipment.

Range
Lifting aids Wheelbarrow, sack barrow, mechanical lifting aids, pallet truck.

Learning outcome
The learner will: 6. know about access equipment and working at heights
Assessment criteria
The learner can: 6.1 identify legislation relating to working at heights 6.2 identify types of access equipment 6.3 state safe methods of use for access equipment 6.4 identify dangers of working at height.

Range
Access equipment: Stepladders, ladders (pole, extension), trestles, hop-ups, proprietary scaffolding, podium, stilts
Safe methods Regular inspection, check for broken, damaged or missing components, responsible use, consideration of adverse weather conditions, good housekeeping
Dangers Falling tools, falling equipment, falling materials, persons falling from height (injuries to themselves and others).

Learning outcome
The learner will: 7. know how to work with electrical equipment in the workplace
Assessment criteria
The learner can: 7.1 state precautions to take to avoid risks to self and others when working with electrical equipment 7.2 state dangers of using electrical equipment 7.3 identify voltages and voltage colour coding that are used in the workplace 7.4 state methods of storing electrical equipment.

Range
Precautions Check leads, check plugs, use of cable hangers, check tools and equipment, current valid PAT certificate
Dangers: Burns, electrocution, fire.
Voltages Battery powered, 110/115 volts, 230/240 volts and 415 volts.
Methods Components present, equipment cleaned, checked for damage, stored in a clean and secure location.

Learning outcome
The learner will: 8. know how to use Personal Protective Equipment (PPE)
Assessment criteria
The learner can: 8.1 state the legislation governing use of Personal Protective Equipment (PPE) 8.2 state types of PPE used in the workplace 8.3 state the importance of PPE 8.4 state why it is important to store, maintain and use PPE correctly 8.5 state the importance of checking and reporting damaged PPE.

Range
PPE: Head protection, eye protection, ear protection, face/dust masks, breathing apparatus, high visibility clothing, safety footwear, gloves, sun protection, barrier cream, water proofs, knee pads, overalls/disposable clothing

Learning outcome
The learner will: 9. know the cause of fire and fire emergency procedures
Assessment criteria
The learner can: 9.1 state elements essential to creating a fire 9.2 identify methods of fire prevention 9.3 state actions to be taken on discovering a fire 9.4 state types of fire extinguishers and their uses.

Range
Elements Oxygen, fuel, heat.
Types of fire extinguishers: Water, foam, CO2, dry powder.



Appendix 1 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on www.cityandguilds.com.

Centre Manual - Supporting Customer Excellence contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document includes sections on:

- The centre and qualification approval process
- Assessment, internal quality assurance and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Management systems
- Maintaining records
- Assessment
- Internal quality assurance
- External quality assurance.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **centre homepage** section of the City & Guilds website also contains useful information on such things as:

- **Walled Garden:** how to register and certificate candidates on line
- **Events:** dates and information on the latest Centre events
- **Online assessment:** how to register for e-assessments.

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www.cityandguilds.com

Useful contacts

International learners

General qualification information

E: intcg@cityandguilds.com

Centres

Exam entries, Certificates,
Registrations/enrolment, Invoices,
Missing or late exam materials,
Nominal roll reports, Results

E: centresupport@cityandguilds.com

Single subject qualifications

Exam entries, Results, Certification,
Missing or late exam materials,
Incorrect exam papers, Forms
request (BB, results entry), Exam
date and time change

E: singlesubjects@cityandguilds.com

International awards

Results, Entries, Enrolments,
Invoices, Missing or late exam
materials, Nominal roll reports

E: intops@cityandguilds.com

Walled Garden

Re-issue of password or username,
Technical problems, Entries,
Results, e-assessment, Navigation,
User/menu option, Problems

E: walledgarden@cityandguilds.com

Employer

Employer solutions, Mapping,
Accreditation, Development Skills,
Consultancy

E: business@cityandguilds.com

Publications

Logbooks, Centre documents,
Forms, Free literature

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