

# Level 2 Diploma in Stonemasonry (6715-02)

February 2018 Version 1.2



## Qualification at a glance

<b>Subject area</b>	Construction
<b>City &amp; Guilds number</b>	6715
<b>Age group approved</b>	16-18, 19+
<b>Entry requirements</b>	None
<b>Assessment</b>	Multiple choice/assignment
<b>Support materials</b>	Centre handbook Assessor guidance Practical task manual
<b>Registration and certification</b>	Consult the Walled Garden/Online Catalogue for last dates

<b>Title and level</b>	<b>GLH</b>	<b>TQT</b>	<b>City &amp; Guilds number</b>	<b>Accreditation number</b>
Level 2 Diploma in Stonemasonry	459	500	6715-02	601/3612/1

<b>Version and date</b>	<b>Change detail</b>	<b>Section</b>
1.2 February 2018	Added GLH and TQT details  Removed QCF	Qualification at a glance and Introduction  Centre requirements and Appendix 1
1.1 December 2015	Updated range for LO 1, 3 and 4 in unit 201	Units



# Contents

<b>1</b>	<b>Introduction</b>	<b>4</b>
	Structure	5
<b>2</b>	<b>Centre requirements</b>	<b>6</b>
	Approval	6
	Resource requirements	6
	Continuing professional development (CPD)	6
	Candidate entry requirements	7
<b>3</b>	<b>Delivering the qualification</b>	<b>8</b>
	Initial assessment and induction	8
	Support materials	8
<b>4</b>	<b>Assessment</b>	<b>9</b>
<b>5</b>	<b>Units</b>	<b>14</b>
<b>Unit 201/601</b>	<b>Health, safety and welfare in construction</b>	<b>15</b>
<b>Unit 202/602</b>	<b>Principles of building construction, information and communication</b>	<b>21</b>
<b>Unit 268</b>	<b>Setting out and templet making for stonemasonry components</b>	<b>26</b>
<b>Unit 269</b>	<b>Working stonemasonry components</b>	<b>30</b>
<b>Unit 270</b>	<b>Fixing stonemasonry components</b>	<b>33</b>
<b>Unit 271</b>	<b>Principles of architectural heritage, conservation and restoration</b>	<b>37</b>
<b>Appendix 1</b>	<b>Sources of general information</b>	<b>40</b>



# 1 Introduction

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

<b>Area</b>	<b>Description</b>
Who is the qualification for?	It is for candidates who work or want to work in the stonemasonry industry.
What does the qualification cover?	<p>It allows candidates to learn, develop and practise the skills required for employment and/or career progression in stonemasonry.</p> <p>In addition to covering health and safety, the principles of construction, and the principles of architectural heritage, conservation and restoration, it covers the following skills:</p> <ul style="list-style-type: none"><li>• setting out and templet making</li><li>• working stonemasonry components</li><li>• fixing stonemasonry components.</li></ul>
What opportunities for progression are there?	<p>It allows candidates to progress into employment or to the following City &amp; Guilds qualification:</p> <ul style="list-style-type: none"><li>• Level 3 Diploma in Stonemasonry.</li></ul>

## Structure

To achieve the **Level 2 Diploma in Stonemasonry (6715-02)**, learners must achieve **50** credits from the mandatory units.

<b>Unit accreditation number</b>	<b>City &amp; Guilds unit number</b>	<b>Unit title</b>	<b>Credit value</b>	<b>GLH</b>
<b>Mandatory</b>				
A/504/6719	Unit 201 / 601	Health, safety and welfare in construction	7	70
Y/504/6999	Unit 202 / 602	Principles of building construction, information and communication	6	55
J/506/4799	Unit 268	Setting out and templet making for stonemasonry components	8	70
M/506/4800	Unit 269	Working stonemasonry components	21	199
T/506/4801	Unit 270	Fixing stonemasonry components	5	43
A/506/4802	Unit 271	Principles of architectural heritage, conservation and restoration	3	22

## Total Qualification Time

Total Qualification Time (TQT) is the total amount of time, in hours, expected to be spent by a Learner to achieve a qualification. It includes both guided learning hours (which are listed separately) and hours spent in preparation, study and assessment.

<b>Title and level</b>	<b>GLH</b>	<b>TQT</b>
Level 2 Diploma in Stonemasonry	459	500



## 2 Centre requirements

### Approval

The approval process for construction qualifications is available at our website. Please visit [www.cityandguilds.com/construction](http://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 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 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:

<b>Description</b>	<b>How to access</b>
Assessor guidance	<a href="http://www.cityandguilds.com">www.cityandguilds.com</a>
Practical task manual	<a href="http://www.cityandguilds.com">www.cityandguilds.com</a>
Qualification approval form	<a href="http://www.cityandguilds.com/construction">www.cityandguilds.com/construction</a>





## 4 Assessment

<b>Unit</b>	<b>Title</b>	<b>Assessment method</b>	<b>Where to obtain assessment materials</b>
201 / 601	Health, safety and welfare in construction	City & Guilds e-volve multiple choice test or on demand externally marked paper. The test covers all of the knowledge in the unit.	Examinations provided e-volve or question papers ordered via Walled Garden.
202 / 602	Principles of building construction, information and communication	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.	<b>www.cityandguilds.com</b>
268	Setting out and templet making for stonemasonry components	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.	<b>www.cityandguilds.com</b>

<b>Unit</b>	<b>Title</b>	<b>Assessment method</b>	<b>Where to obtain assessment materials</b>
269	Working stonemasonry components	<p>Multiple choice question paper, covering knowledge outcomes.</p> <p>Practical assignment, covering performance outcomes.</p> <p>Both assessments are set by City &amp; Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City &amp; Guilds to make sure they are properly carried out.</p>	<b>www.cityandguilds.com</b>
270	Fixing stonemasonry components	<p>Multiple choice question paper, covering knowledge outcomes.</p> <p>Practical assignment, covering performance outcomes.</p> <p>Both assessments are set by City &amp; Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City &amp; Guilds to make sure they are properly carried out.</p>	<b>www.cityandguilds.com</b>
271	Principles of architectural heritage, conservation and restoration	<p>Multiple choice question paper, covering knowledge outcomes.</p> <p>Set by City &amp; Guilds, delivered and marked by the tutor/assessor, and externally verified by City &amp; Guilds to make sure it is properly carried out.</p>	<b>www.cityandguilds.com</b>

## Test specifications

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

**Test 1:** Unit 201/601 Health, safety and welfare in construction

**Duration:** 1 hour

Unit	Outcome	Number of questions	%
201/601	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
	<b>Total</b>	<b>40</b>	<b>100</b>

**Test 2:** Unit 202/602 Principles of building construction, information and communication

**Duration:** 80 minutes

<b>Unit</b>	<b>Outcome</b>	<b>Number of questions</b>	<b>%</b>
202/602	1 Understand how to select types of building information	5	12.5
	2 know about environmental considerations in relation to construction	5	12.5
	3 Understand the construction of foundations	7	17.5
	4 Understand construction of internal and external walls	9	22.5
	5 Know about construction of floors	4	10
	6 Know about construction of roofs	3	7.5
	7 Understand how to communicate in the workplace	7	17.5
	<b>Total</b>	<b>40</b>	<b>100</b>

**Test 3:** Unit 268 Setting out and templet making for stonemasonry components

**Duration:** 40 minutes

<b>Unit</b>	<b>Outcome</b>	<b>Number of questions</b>	<b>%</b>
268	1 Understand stonemasonry geometry	16	80
	3 Understand the production process of templets	4	20
	<b>Total</b>	<b>20</b>	<b>100</b>

**Test 4:** Unit 269 Working stonemasonry components

**Duration:** 30 minutes

<b>Unit</b>	<b>Outcome</b>	<b>Number of questions</b>	<b>%</b>
269	1 Understand the principles of working stonemasonry components	17	100
	<b>Total</b>	<b>17</b>	<b>100</b>

**Test 5:** Unit 270 Fixing stonemasonry components  
**Duration:** 30 minutes

<b>Unit</b>	<b>Outcome</b>	<b>Number of questions</b>	<b>%</b>
270	1 Know how to prepare for fixing stonemasonry components	9	60
	3 Know how to set out for fixing stonemasonry components	3	20
	5 Know how to fix stonemasonry components	3	20
<b>Total</b>		<b>15</b>	<b>100</b>

**Test 6:** Unit 271 Principles of architectural heritage, conservation and restoration  
**Duration:** 40 minutes

<b>Unit</b>	<b>Outcome</b>	<b>Number of questions</b>	<b>%</b>
271	1 Understand the periods of historical architecture	6	30
	2 Understand the different considerations of architectural conservation and restoration	4	20
	3 Understand the different methods of conservation and restoration	10	50
<b>Total</b>		<b>20</b>	<b>100</b>



## 5 Units

### Availability of units

The following units can also be obtained from The Register of Regulated Qualifications: <http://register.ofqual.gov.uk/Unit>

### Structure of units

These units each have the following:

- City & Guilds reference number
- unit accreditation number (UAN)
- title
- level
- credit value
- guided learning hours
- 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.

# Unit 201/601 Health, safety and welfare in construction

<b>UAN:</b>	<b>A/504/6719</b>
<b>Level:</b>	2
<b>Credit value:</b>	7
<b>GLH:</b>	70
<b>Endorsement by a sector or regulatory body:</b>	This unit is endorsed by Construction Skills, the Sector Skills Council for the construction industry.
<b>Aim:</b>	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

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

<b>Range</b>
<b>Health and safety legislation</b>
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).

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

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

<b>Learning outcome</b>
The learner will: 8. know how to use Personal Protective Equipment (PPE)
<b>Assessment criteria</b>
The learner can: 8.1 state the legislation governing use of Personal Protective Equipment (PPE) 8.2 state <b>types of PPE</b> 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.

<b>Range</b>
<b>PPE:</b> 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

<b>Learning outcome</b>
The learner will: 9. know the cause of fire and fire emergency procedures
<b>Assessment criteria</b>
The learner can: 9.1 state <b>elements</b> 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 <b>types of fire extinguishers</b> and their uses.

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

## Unit 202/602 Principles of building construction, information and communication

<b>UAN:</b>	Y/504/6999
<b>Level:</b>	2
<b>Credit value:</b>	6
<b>GLH:</b>	55
<b>Endorsement by a sector or regulatory body:</b>	This unit is endorsed by Construction Skills.
<b>Aim:</b>	<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"> <li>• understanding a range of building materials used within the construction industry and their suitability to the construction of modern buildings</li> <li>• processes for disseminating information</li> <li>• basic concepts of effective communication.</li> </ul>

<b>Learning outcome</b>
The learner will:
1. understand how to select types of building information.
<b>Assessment criteria</b>
The learner can:
1.1 interpret <b>information sources</b> used in construction
1.2 interpret scale, <b>symbols</b> and <b>hatchings</b> on a working drawing
1.3 explain the purpose of <b>benchmarks</b> used in construction.

<b>Range</b>
<b>Information sources</b>
Drawings , schedules, specifications, programme of work, organisational chart, method statements, risk assessment, manufacturers' technical information, bill of quantities, order requisitions, delivery notes, variation orders, permits to work, signs and notices

**Symbols**

WC, sink, bath, door, window

**Hatchings**

Brickwork, timber (wrot and unwrot), blockwork, concrete, hardcore, sub soil, insulation, damp proof course (DPC), damp proof membrane (DPM)

**Benchmarks**

Site datums, temporary bench marks (TBM), ordnance bench marks (OBM)

**Learning outcome**

The learner will:

2. know about environmental considerations in relation to construction.

**Assessment criteria**

The learner can:

- 2.1 describe thermally insulated **materials**
- 2.2 describe **methods** of making buildings water efficient
- 2.3 describe **methods** of making buildings energy efficient
- 2.4 state environmental-friendly **building materials**
- 2.5 state **procedures** for waste management.

**Range****Materials**

Polyisocyanurate (PIR), Expanded Polystyrene (EP), fibre glass, mineral wool, double glazed units, multi-foil insulation

**Methods (2.2)**

Efficient sanitary ware, water harvesting

**Methods (2.3)**

Low energy lighting, automatic movement sensors, solar panels, wind turbines, heat source, biomass heating

**Building materials**

Locally sourced, managed timber (FSC), lime, sheep wool, recycled materials, straw

**Procedures**

Segregation and recycling of waste, safe disposal of hazardous materials, Local Exhaust Ventilation (LEV)

<b>Learning outcome</b>
The learner will: 3. understand the construction of foundations.
<b>Assessment criteria</b>
The learner can: 3.1 describe <b>factors</b> to be considered when selecting <b>foundations</b> 3.2 describe <b>materials</b> and mix-ratios used in concrete foundations 3.3 explain how to <b>set out</b> foundations 3.4 explain <b>factors</b> to consider when excavating foundations 3.5 describe <b>methods</b> of transferring datums 3.6 calculate the volume of concrete used in pile foundation.

<b>Range</b>
<b>Factors (3.1)</b> Ground conditions (subsoil), strength, types of building
<b>Foundations</b> Strip, raft, pile, pad
<b>Materials</b> Course aggregate, fine aggregate, cement, water, steel reinforcement, sulphate-resisting cement, ordinary portland cement, frost proofing, accelerators, retardants
<b>Set out</b> 3:4:5 method, diagonals, profiles, builder's square
<b>Factors (3.4)</b> Underground services, proximity to neighbouring buildings, tree roots, ground conditions
<b>Methods</b> Optical/laser level, straight edge and spirit level

<b>Learning outcome</b>
The learner will: 4. understand construction of internal and external walls.
<b>Assessment criteria</b>
The learner can: 4.1 describe <b>wall components</b> 4.2 explain the importance of a Damp Proof Course (DPC) 4.3 calculate the area of a gable 4.4 identify <b>additives</b> used in mortar 4.5 identify different types of <b>bonding</b> 4.6 describe the differences between load-bearing and non-load-bearing internal walls 4.7 calculate the volume of paint required to cover a wall area.

<b>Range</b>
<p><b>Wall components</b> Brick, block, insulation, Damp Proof Course (DPC), lintels, wall ties, airbrick and liner, cavity closures, stud partition, light density blocks, plasterboard, plaster</p> <p><b>Additives</b> Retardant, accelerant, frost inhibitor, cement dyes, plasticiser</p> <p><b>Bonding</b> Stretcher, English, Flemish</p>

<b>Learning outcome</b>
The learner will:
5. know about construction of floors.
<b>Assessment criteria</b>
The learner can:
5.1 describe <b>floor components</b>
5.2 calculate the linear quantity of floor boarding to cover an irregular shaped area
5.3 calculate additional quantities of wastage using percentage.

<b>Range</b>
<p><b>Floor components</b> Hardcore, blinding sand, Damp Proof Membrane (DPM), insulation, oversite concrete, block and beam, pre-cast floor panels, screed (dry, self-levelling) sleeper walls, wall plates, DPC, joists, joist hangers, floor covering</p>

<b>Learning outcome</b>
The learner will:
6. know about construction of roofs.
<b>Assessment criteria</b>
The learner can:
6.1 describe <b>types</b> of roofs
6.2 describe <b>roof components</b> .

<b>Range</b>
<p><b>Types</b> Gable-ended, flat, hipped, lean-to</p> <p><b>Roof components</b> Purlins, rafters, truss rafters, ridge, batten/lathe, fascia, soffit, barges, valleys, wall plate, flashings, felt, slate/tile, insulation, joists, wall plate straps</p>



<b>Learning outcome</b>
The learner will: 7. understand how to communicate in the workplace.
<b>Assessment criteria</b>
The learner can: 7.1 describe <b>job roles</b> within building teams 7.2 explain <b>key personnel</b> involved in day to day communication 7.3 state <b>information</b> needed when requesting materials 7.4 identify <b>methods of communication</b> used to relay information to colleagues and others 7.5 describe advantages and disadvantages of <b>methods of communication</b> 7.6 state <b>occasions</b> when clear communication is vital in the workplace 7.7 explain <b>benefits</b> of positive communication with colleagues and others.

<b>Range</b>
<b>Job roles</b> Professional, technician, trade, general operative
<b>Key personnel</b> Site manager, supervisors, fellow operatives
<b>Information</b> Dimensions, quantities, type, when and where required, contact name and details
<b>Methods of communication (7.4)</b> Letters, emails, telephone, memos, verbal, posters, signs, meetings, radio, text messages
<b>Methods of communication (7.5)</b> Written, verbal
<b>Occasions</b> Changes to risk assessments, work restrictions, changes to method statement, permits to work, changes to legislation
<b>Benefits</b> Improved motivation, avoid conflict, complying with equality and diversity, meeting deadlines

## Unit 268

# Setting out and templet making for stonemasonry components

<b>UAN:</b>	J/506/4799
<b>Level:</b>	2
<b>Credit value:</b>	8
<b>GLH:</b>	70
<b>Endorsement by a sector or regulatory body:</b>	This unit is endorsed by Construction Skills.
<b>Aim:</b>	The aim of this unit is to provide learners with the underpinning knowledge and skills to set out and produce templates for stonemasonry components.

<b>Learning outcome</b>
The learner will: 1. understand stonemasonry geometry.
<b>Assessment criteria</b>
The learner can: 1.1 state the <b>resources</b> required for <b>full size stonemasonry geometry</b> 1.2 describe the advantages and disadvantages of using computer aided design (CAD) 1.3 describe the purposes of different <b>line types</b> 1.4 describe different <b>types of triangle</b> 1.5 describe the different <b>parts of a circle</b> 1.6 describe different <b>components</b> of arches 1.7 describe different <b>arch forms</b> 1.8 describe different <b>projection methods</b> 1.9 describe <b>section details</b> 1.10 describe face moulds and bed moulds 1.11 explain the purpose of proportional reduction.

<b>Range</b>
<b>Resources</b> Compasses, trammel heads, trammels, scale rule, protractor, beam compass, retractable 0.3 mm pencils, drawing paper, tracing paper, set squares, drawing board, T squares, setting out table, pens
<b>Full size stonemasonry geometry</b>

circles, triangles, arches, radii

### **Line types**

Construction line, hidden detail, centre line, outline, dimension line, wall line, clean line, break line

### **Types of triangle**

Equilateral, isosceles, obtuse, scalene, right angle

### **Parts of a circle**

Circumference, diameter, radius, centre, arc, cord, segment, tangent, normal, sector, quadrant, area

### **Components**

Soffit, striking point, springing line, bisecting line, springing point, voussoirs, keystone, intrados, extrados, abutments, rise, haunches, span, crown, impost, spandrel, springer

### **Arch forms**

Semi-circular, segmental, drop, lancet, equilateral, three centred, Tudor four centred, horseshoe, ogee, flat, elliptical, parabolic

### **Projection methods**

Orthographic, isometric, axonometric, oblique

### **Section details**

Rebate, chamfer, fillet, ovolo, cavetto, cyma recta, cyma reversa, quadrant, segment, astragal, bead, torus, scotia, parabolic, elliptical, developed sections

### **Learning outcome**

The learner will:

2. be able to carry out stonemasonry geometry.

### **Assessment criteria**

The learner can:

- 2.1 bisect lines
- 2.2 erect **lines**
- 2.3 divide a line into equal divisions along a given length
- 2.4 construct **triangles**
- 2.5 construct **parts of a circle**
- 2.6 construct different **arch forms**
- 2.7 produce a job card
- 2.8 set out **drawings** to scale
- 2.9 set out **section details**
- 2.10 set out positions of fixings
- 2.11 set out **bed moulds and face moulds**
- 2.12 set out proportional reduction.

<b>Range</b>
<p><b>Lines</b> Perpendicular line from a given point, perpendicular from the end of a line, perpendicular from outside the line</p> <p><b>Triangles</b> Equilateral, isosceles, obtuse, scalene, right angle</p> <p><b>Parts of a circle</b> Circumference, diameter, radius, centre, arc, cord, segment, tangent, normal, sector, quadrant, area</p> <p><b>Arch forms</b> Semi-circular, segmental, drop, lancet, equilateral, three centred, Tudor four centred, horseshoe, ogee, flat, elliptical, parabolic</p> <p><b>Drawings</b> Orthographic, isometric, axonometric, oblique</p> <p><b>Section details</b> Rebate, chamfer, fillet, ovolo, cavetto, cyma recta, cyma reversa, quadrant, segment, astragal, bead, torus, scotia, parabolic, elliptical, developed sections, quirk</p> <p><b>Bed moulds and face moulds</b> Curved on plan/elevation, straight, internal/external mitres, ashlar stops</p>

<b>Learning outcome</b>
The learner will: 3. understand the production process of templates.
<b>Assessment criteria</b>
The learner can: 3.1 describe the use of <b>resources</b> required for templet making 3.2 explain the use of different <b>templet materials</b> 3.3 calculate the area of templet material required for <b>shaped work</b> .

<b>Range</b>
<p><b>Resources</b> Zinc, card, plastic, permanent markers, pens, pencils, scribe, tin snips, scissors, dividers, compass cutters, straight edge, ruler, cutting mats, compass, files, wire wool, craft knife, beam compass, trammel heads, set squares</p> <p><b>Templet materials</b> Zinc, card, plastic</p>

**Shaped work**

Circles, arches, triangles, ellipses

**Learning outcome**

The learner will:

4. be able to make templets and moulds.

**Assessment criteria**

The learner can:

- 4.1 interpret information from a job card
- 4.2 complete method statements for making templets and moulds
- 4.3 complete risk assessments for making templets and moulds
- 4.4 select appropriate Personal Protective Equipment for making templets and moulds
- 4.5 select appropriate **templet materials**
- 4.6 select resources required for making templets
- 4.7 transfer **setting out details** to templet material
- 4.8 produce **templets** within industry tolerances
- 4.9 annotate templets with necessary information
- 4.10 store templets correctly
- 4.11 dispose of waste materials in accordance with legislative requirements
- 4.12 protect work and surrounding areas during the templet and mould making process
- 4.13 follow current environmental and relevant health and safety legislation.

**Range****Templet materials**

Plastic, card, zinc

**Setting out details**

Rebate, chamfer, fillet, ovolo, cavetto, cyma recta, cyma reversa, quadrant, segment, fixings (joggles, slots, dowel holes, cramps), astragal, bead, torus, scotia, parabolic, elliptical, developed sections, quirk, curved on plan/elevation, straight, internal/external mitres, ashlar stops

**Templets**

Section, bed, face, reverse

## Unit 269

## Working stonemasonry components

<b>UAN:</b>	M/506/4800
<b>Level:</b>	2
<b>Credit value:</b>	21
<b>GLH:</b>	199
<b>Endorsement by a sector or regulatory body:</b>	This unit is endorsed by Construction Skills.
<b>Aim:</b>	The aim of this unit is to provide the learner with the underpinning knowledge and skills to work stonemasonry components.

<b>Learning outcome</b>
The learner will: 5. understand the principles of working stonemasonry components.
<b>Assessment criteria</b>
The learner can: 5.1 state the <b>resources</b> required for working stonemasonry components 5.2 state the control measures that should be used for <b>hazards</b> associated with working stone 5.3 state the application and use of different <b>stonemasonry components</b> 5.4 describe the different <b>elements</b> of stonemasonry components 5.5 describe the process of working <b>stonemasonry components</b> 5.6 describe the process of producing <b>surface finishes</b> to stonemasonry components.

<b>Range</b>
<b>Resources</b> Straight edges, boning blocks, pitchers, punches, claws, hammer, sledge hammer, mason's mallet, plugs and feathers, tri square, 9H pencil, soft stone/Bath chisels, drags (English & French), tungsten chisels, fire sharpened chisels, dummies, brushes, files, rasps, scribe, dividers, mitre board, quirk/mitre chisels, box trammel, sinking square, miller, gouges, bullnoses, wax crayon, shift stocks/sliding bevels, drill, transformer, leads, drill bits, bars, carborundum blocks, angle grinders, grinder blades, polishing equipment (variable speed polisher, carborundum wheels, diamond pads, putty powder, buffing wheels, stucco wax), routers

## Hazards

Flying debris, dust, sharps, vibrations, temperature extremes, excessive noise, heavy loads, electrical tools and equipment, wet surfaces, working at height, hazardous substances

## Stonemasonry components

Voussoirs, springer, keystone, kneeler, apex, balustrade, string course, plinth, cornice, copings, cills, transoms, jambs, mullions, pediment, columns, treads, risers, tracery, hood mould, label mould, capitals, pilaster, quoins, heads

## Elements

Curved to straight, internal mitre, external mitre, ashlar stop, return break, arris, return stop, face of operation, mitre lines, top bed, bottom bed, sawn back, joints, joggles, slots, dowel holes, drips, glazing grooves, stooling, weathering

## Stonemasonry components

Voussoirs, springer, keystone, kneeler, apex, balustrade, string course, plinth, cornice, copings, cills, transoms, jambs, mullions, pediment, columns, treads, risers, tracery, hood mould, label mould, capitals, pilaster, quoins, heads

## Surface finishes

Tooled, rubbed, polished, dragged, batted, picked/pecked, reticulated, vermiculated, honed, flame textured, riven, punched, pitched, cropped, axed, rustication, tooled margin, furrowed

## Learning outcome

The learner will:

6. be able to work stonemasonry components.

## Assessment criteria

The learner can:

- 6.1 interpret **information sources** for working stonemasonry components
- 6.2 complete method statements to work stonemasonry components
- 6.3 carry out risk assessments to work stonemasonry components
- 6.4 select appropriate Personal Protective Equipment for working stonemasonry components
- 6.5 select appropriate stone for stonemasonry components
- 6.6 select resources required for working stonemasonry components
- 6.7 check surfaces for true, out of twist, square and defects
- 6.8 work **stonemasonry components** to include **mouldings** and **elements**
- 6.9 produce **surface finish** to given specification
- 6.10 prepare stones for **fixing**

- 6.11 dispose of waste materials in accordance with legislative requirements
- 6.12 protect work and surrounding areas when working stonemasonry components
- 6.13 follow current environmental and relevant health and safety legislation.

### **Range**

#### **Information sources**

Drawings, job card, specifications, templates

#### **Stonemasonry components**

Cill, hood mould, column base

#### **Mouldings**

Rebate, chamfer, fillet, ovolo, cavetto, cyma recta, cyma reversa, quadrant, segment, astragal, bead, torus, scotia, parabolic, elliptical, developed sections

#### **Elements**

Curved to straight, internal mitre, external mitre, ashlar stop, return break, arris, return stop, face of operation, mitre lines, top bed, bottom bed, sawn back, joints, drips, glazing grooves, stooling, weathering, curved face

#### **Surface finish**

Tooled, chiselled, rubbed, dragged, batted, picked/pecked, tooled margin, furrowed, reticulated, vermiculated

#### **Fixing**

Joggles, slots, dowel holes, cramps



## Unit 270

## Fixing stonemasonry components

<b>UAN:</b>	T/506/4801
<b>Level:</b>	2
<b>Credit value:</b>	5
<b>GLH:</b>	43
<b>Endorsement by a sector or regulatory body:</b>	This unit is endorsed by ConstructionSkills.
<b>Aim</b>	The aim of this unit is to provide learners with the underpinning knowledge and skills to prepare for, set out and fix stonemasonry components.

<b>Learning outcome</b>
The learner will: 1. know how to prepare for fixing stonemasonry components.
<b>Assessment criteria</b>
The learner can: 1.1 state the purpose of <b>documents</b> required when planning for fixing stone on site 1.2 calculate the mass of shaped stone to determine lifting requirements 1.3 state the <b>checks</b> that should be carried out before lifting stonemasonry components 1.4 list control measures that should be used for <b>hazards</b> associated with fixing stone 1.5 list the <b>tools and equipment</b> required for fixing stone 1.6 list the <b>materials</b> required for fixing stone 1.7 list the <b>fixings</b> used for fixing stone.

<b>Range</b>
<b>Documents</b> Drawings, specifications, fixing schedules, time sheets, COSHH datasheets, site diaries, delivery schedules, method statement, risk assessment, pallet schedule, delivery notes
<b>Checks</b> Sufficient manual handling training, clear walkway routes, visual inspection of lifting gear and equipment, correct lifting gear and equipment - Safe Working Load (SWL), up to date certification

**Hazards**

Flying debris, dust, sharps, vibrations, temperature extremes, excessive noise, heavy loads, electrical tools and equipment, wet surfaces, working at height, hazardous substances (lime, cement)

**Tools and equipment**

Straight edges, hammer, sledge hammer, mason's mallet, builder's square, 9H pencil, sweeping brushes, drill, transformer, leads, drill bits, bars, gauging trowel, fixing trowel, pointing trowel, lifting trowel, pointing irons, rubber mallet, spirit level, plumb bob, line and pins, wedges, buckets, tingle plates, corner blocks, sponges, soft brush, churn/stiff brush, shovels, wheel barrows, mixers, punches, quirks, bolsters, pitchers, tape measures

**Materials**

Stone, hydraulic lime, hydrated lime, lime putty, sand (sharp, soft, washed, silver), white cement, grey cement, chemical cement, clean water, grouts, insulation, backing materials (brick, block, concrete, timber frame), DPC, airbrick, cavity/airbrick liner (fixed, telescopic), cavity tray, weep holes, wheels/cavity insulation clips, wall ties, drainage pipes, pea gravel, ground membrane

**Fixings**

Expansion joints, compression beds, load bearing fixings, wire fixings, fixing arches, soffit stones, stainless steel dowels, dog cramps, dovetail cramps, dovetail slots

**Learning outcome**

The learner will:

2. be able to prepare for fixing stonemasonry components.

**Assessment criteria**

The learner can:

- 2.1 interpret **documents** required for fixing stone on site
- 2.2 complete method statements for fixing stonemasonry components
- 2.3 carry out risk assessments for fixing stonemasonry components
- 2.4 select appropriate Personal Protective Equipment for fixing stonemasonry components
- 2.5 select resources required for fixing **stonemasonry components**
- 2.6 follow current environmental and relevant health and safety legislation.

**Range****Documents**

Drawings, specifications, COSHH datasheets, delivery schedules

**Stonemasonry components**

Cills, jambs, heads, voussoirs, springer, keystone, column base

<b>Learning outcome</b>
The learner will: 3. know how to set out for fixing stonemasonry components.
<b>Assessment criteria</b>
The learner can: 3.1 state the <b>resources</b> required for setting out 3.2 state the method of setting out gridlines and datums 3.3 state the <b>methods</b> of maintaining openings.

<b>Range</b>
<b>Resources</b> Tape measures, line and pins, straight edge, spirit level, nails, hammer, spray paint, laser level, plumb bob, chalk line, dumpy level
<b>Methods</b> Use of tape measure, level, pinch rod or gauge rod

<b>Learning outcome</b>
The learner will: 4. be able to set out for fixing stonemasonry components.
<b>Assessment criteria</b>
The learner can: 4.1 interpret information from drawings and specifications 4.2 select resources required for setting out to fix <b>stonemasonry components</b> 4.3 set out from a given gridline 4.4 set out to a correct datum level 4.5 check setting out for dimensional accuracy 4.6 check setting out for plumb and level 4.7 follow current environmental and relevant health and safety legislation.

<b>Range</b>
<b>Stonemasonry components</b> Cill, jambs, head, voussoirs, springer, keystone, column base

<b>Learning outcome</b>
The learner will: 5. know how to fix stonemasonry components.
<b>Assessment criteria</b>
The learner can: 5.1 describe different <b>features</b> of masonry structures 5.2 describe methods of fixing <b>stonemasonry components</b> 5.3 state the uses of different types of <b>mortar</b> .

<b>Range</b>
<b>Features</b> Window surrounds, quoins, arches, copings, buttresses, doorways, paving
<b>Stonemasonry components</b> String course, plinth, cornice, copings, cills, jambs, mullions, quoins, heads
<b>Mortar</b> Cement, lime putty, hydraulic lime, hydrated lime

<b>Learning outcome</b>
The learner will: 6. be able to fix stonemasonry components.
<b>Assessment criteria</b>
The learner can: 6.1 interpret information from drawings and specifications 6.2 prepare mortar mixes for fixing stonemasonry components 6.3 fix <b>stonemasonry components</b> 6.4 apply <b>joint finishes</b> 6.5 dispose of waste materials in accordance with legislative requirements 6.6 protect work and surrounding areas when fixing stonemasonry components 6.7 follow current environmental and relevant health and safety legislation.

<b>Range</b>
<b>Stonemasonry components</b> Cill, jambs, head, voussoirs, springer, keystone, column base
<b>Joint finishes</b> Flush

## Unit 271

# Principles of architectural heritage, conservation and restoration

<b>UAN:</b>	A/506/4802
<b>Level:</b>	2
<b>Credit value:</b>	3
<b>GLH:</b>	22
<b>Endorsement by a sector or regulatory body:</b>	This unit is endorsed by Construction Skills.
<b>Aim:</b>	The aim of this unit is to provide learners with the knowledge and understanding of architectural heritage, conservation and restoration.

<b>Learning outcome</b>
The learner will: 1. understand historical periods of architecture.
<b>Assessment criteria</b>
The learner can: 1.1 describe the key characteristics of <b>historical architecture</b> 1.2 explain the characteristics of the <b>Greek orders of architecture</b> 1.3 explain the characteristics of the <b>Roman orders of architecture</b> 1.4 explain the architectural characteristics of <b>Medieval structures</b> 1.5 describe the styles of <b>Gothic architecture</b> .

<b>Range</b>
<b>Historical architecture</b> Egyptian, Greek, Roman, Islamic, Byzantine, Medieval, Tudor, Georgian, Victorian
<b>Greek orders of architecture</b> Doric, Ionic, Corinthian
<b>Roman orders of architecture</b> Tuscan, Composite, Doric, Ionic, Corinthian
<b>Medieval structures</b> Monasteries, abbeys, forts, castles, cathedrals, churches

**Gothic architecture**

Norman, early English, decorated, perpendicular

**Learning outcome**

The learner will:

2. understand the different considerations of architectural conservation and restoration.

**Assessment criteria**

The learner can:

- 2.1 explain the difference between conservation and restoration work
- 2.2 explain the difference between listed and non-listed **architectural structures**
- 2.3 state the **factors** that determine the need for conservation or restoration work
- 2.4 state the **organisations** that are involved in architectural conservation and restoration.

**Range****Architectural structures**

Cathedrals, churches, commercial, stately homes, government, monuments, industrial

**Factors**

Listing, available budget, heritage bodies involved, structural integrity, historical significance, materials used

**Organisations**

National Trust, English Heritage, Historic Scotland, Cadw, Northern Ireland Environment Agency, Society for the Protection of Ancient Buildings (SPAB), Stone Federation GB, National Stone Directory, Building Research Establishment, British Geological Survey (BGS), Victorian Society, Georgian Group, National Churches Trust, Royal Institute of British Architects (RIBA)

**Learning outcome**

The learner will:

3. understand the different methods of conservation and restoration.

**Assessment criteria**

The learner can:

- 3.1 identify **decay drivers** associated with architectural structures requiring conservation or restoration work
- 3.2 describe the **types of repair** that may be carried out
- 3.3 identify **specialist resources** used for conservation or restoration work
- 3.4 describe the **methods of cleaning** architectural structures
- 3.5 state the **factors** to be considered when sourcing stone

- 3.6 describe the **factors** to be considered when selecting mortars for conservation or restoration work
- 3.7 explain **methods** of providing temporary supports and bracings while carrying out conservation or restoration work.

### **Range**

#### **Decay drivers**

Moisture, mechanical, material, thermal movement/weather, poor standard of work, plant life

#### **Types of repair**

Mortar, indents, pointing, pinning

#### **Specialist resources**

Small tools, pointing irons, floats, hessian/straw, sieves, hacksaw blades, dentist tools, pointing trowel, hawk, oscillator, syringes, anchor systems, tie bars, sponges, wet brushes.

#### **Methods of cleaning**

Nebulous sprays, JOS system, DOFF system, TORC system, clean-film, chemical, poultice, laser

#### **Factors (3.5)**

Availability, cost, historical match, colour, texture, compressive strength, porosity, building suitability

#### **Factors (3.6)**

Ratios, mortar analysis, grading, use of pigments, use of binders (natural and synthetic)

#### **Methods**

Dead shores (needles/pins, adjustable shoring props, timber props, slate wedges, folding wedges)



## 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.

**Our Quality Assurance Requirements** encompasses all of the relevant requirements of key regulatory documents such as:

- SQA Awarding Body Criteria (2007)
- NVQ Code of Practice (2006)

and sets out the criteria that centres should adhere to pre and post centre and qualification approval.

**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.

City & Guilds  
**Believe you can**



[www.cityandguilds.com](http://www.cityandguilds.com)

## Useful contacts

<b>UK learners</b> General qualification information	T: +44 (0)844 543 0033 <b>E: learnersupport@cityandguilds.com</b>
<b>International learners</b> General qualification information	T: +44 (0)844 543 0033 F: +44 (0)20 7294 2413 <b>E: intcg@cityandguilds.com</b>
<b>Centres</b> Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 <b>E: centresupport@cityandguilds.com</b>
<b>Single subject qualifications</b> Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 F: +44 (0)20 7294 2404 (BB forms) <b>E: singlesubjects@cityandguilds.com</b>
<b>International awards</b> Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 <b>E: intops@cityandguilds.com</b>
<b>Walled Garden</b> Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 <b>E: walledgarden@cityandguilds.com</b>
<b>Employer</b> Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	T: +44 (0)121 503 8993 <b>E: business@cityandguilds.com</b>
<b>Publications</b> Logbooks, Centre documents, Forms, Free literature	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413

Every effort has been made to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds' products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time. City & Guilds cannot accept liability for loss or damage arising from the use of information in this publication. If you have a complaint, or any suggestions for improvement about any of the services that we provide, email: **feedbackandcomplaints@cityandguilds.com**

## **About City & Guilds**

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

## **City & Guilds Group**

The City & Guilds Group operates from three major hubs: London (servicing Europe, the Caribbean and Americas), Johannesburg (servicing Africa), and Singapore (servicing Asia, Australia and New Zealand). The Group also includes the Institute of Leadership & Management (management and leadership qualifications), City & Guilds Licence to Practice (land-based qualifications), the Centre for Skills Development (CSD works to improve the policy and practice of vocational education and training worldwide) and Learning Assistant (an online e-portfolio).

## **Copyright**

The content of this document is, unless otherwise indicated, © The City and Guilds of London Institute and may not be copied, reproduced or distributed without prior written consent. However, approved City & Guilds centres and candidates studying for City & Guilds qualifications may photocopy this document free of charge and/or include a PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching candidates working towards a City & Guilds qualification, or for internal administration purposes
- candidates may copy the material only for their own use when working towards a City & Guilds qualification

The *Standard Copying Conditions* (see the City & Guilds website) also apply.

Please note: National Occupational Standards are not © The City and Guilds of London Institute. Please check the conditions upon which they may be copied with the relevant Sector Skills Council. Published by City & Guilds, a registered charity established to promote education and training

## **City & Guilds**

**1 Giltspur Street**

**London EC1A 9DD**

**T +44 (0)844 543 0000**

**F +44 (0)20 7294 2413**

**[www.cityandguilds.com](http://www.cityandguilds.com)**

**HB-02-6715**