

Diploma in Plastering at SCQF Level 6 (6808-33)

February 2016 Version 2



Qualification at a glance

Subject area	Construction
City & Guilds number	6808
Age group approved	16-18, 19+
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 Plastering at SCQF Level 6	6808-33

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



Contents

1	Introduction	4
	Structure	5
2	Centre requirements	6
	Approval	6
	Resource requirements	6
	Continuing professional development (CPD)	6
	Candidate entry requirements	7
3	Delivering the qualification	8
	Initial assessment and induction	8
	Support materials	8
4	Assessment	9
5	Units	14
	Structure of units	14
	Range explained	14
	Glossary of terms	14
Unit 201	Health, safety and welfare in construction	16
Unit 301	Principles of organising, planning and pricing construction work	22
Unit 311	Running in-situ moulds	26
Unit 312	Applying plastering materials to detailed interiors	30
Unit 313	Applying plastering materials to detailed exteriors	35
Unit 314	Producing reverse moulds for detailed fibrous plaster and cement casting	39
Unit 315	Producing and fixing detailed fibrous plaster and cement casts	43
Appendix 1	Relationships to other qualifications	48



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 Plasterer 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 Plastering.</p> <p>It covers the following skills:</p> <ul style="list-style-type: none">• Running in-situ moulds• Applying plastering materials to detailed interiors• Applying plastering materials to detailed exteriors• Producing reverse moulds for detailed fibrous plaster and cement casting• Producing and fixing detailed fibrous plaster and cement casts
Is the qualification part of a framework or initiative?	The qualification forms the technical certificate for the Construction Building Apprenticeship Framework.
What opportunities for progression are there?	It allows candidates to progress into employment.

Structure

To achieve the **Diploma in Plastering at SCQF Level 6 (6808-33)**, learners must achieve **51** credits, **26** from the mandatory units and **25** credits from optional group A **or** from optional group B.

City & Guilds unit number	Unit title	Credit value
Mandatory		
Unit 201	Health, safety and welfare in construction	7
Unit 301	Principles of organising, planning and pricing construction work	7
Unit 311	Running in-situ moulds	12
Optional group A		
Unit 312	Applying plastering materials to detailed interiors	12
Unit 313	Applying plastering materials to detailed exteriors	13
Optional group B		
Unit 314	Producing reverse moulds for detailed fibrous plaster and cement casting	12
Unit 315	Producing and fixing detailed fibrous plaster and cement casts	13



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 Plastering workshop (cubicles or project areas) allowing candidates to practise the requirements of the units and carry out the Practical Assignments.

Centre staffing

All staff who assess (tutor/deliver) this qualification 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 this qualification 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 this 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

Whilst there are no formal entry requirements for this qualification, learners are advised to take the SCQF Level 4 and SCQF Level 5 Diplomas in order to ensure they have the right skills and knowledge for SCQF Level 6. Alternatively, the learner should provide evidence of significant industry experience, at the centres discretion.

Age restrictions

City & Guilds cannot accept any registrations for candidates 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
Qualification approval form	www.cityandguilds.com/construction



4 Assessment

Unit	Title	Assessment method	Where to obtain assessment materials
201	Health, safety and welfare in construction	City & Guilds e-volve multiple choice test. The test covers all of the knowledge in the unit.	Examinations provided on e-volve.
301	Principles of organising, planning and pricing construction work	City & Guilds e-volve multiple choice test. The test covers all of the knowledge in the unit.	Examinations provided on e-volve.
311	Running in-situ moulds	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
312	Applying plastering materials to detailed interiors	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
313	Applying plastering materials to detailed exteriors	<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
314	Producing reverse moulds for detailed fibrous plaster and cement casting	<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
315	Producing and fixing detailed fibrous plaster and cement casts	<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

Test specifications

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

Test 1: 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

Test 2: Unit 301 Principles of organising, planning and pricing construction work

Duration: 60 minutes

Unit	Outcome	Number of questions	%
301	1 Understand different types of drawn information in construction	7	17.5
	2 Understand energy efficiency and sustainable materials for construction	8	20
	3 Understand how to estimate quantities and price work for construction	10	25
	4 Understand how to plan work activities for construction	6	15
	5 Understand how to communicate effectively in the workplace	9	22.5
Total		40	100

Test 3: Unit 311 Running in-situ moulds
Duration: 40 minutes

Unit	Outcome	Number of questions	%
311	1 Understand how to interpret information to form and set out in-situ moulds	6	30
	3 Understand how to prepare for running in-situ moulds	7	35
	5 Understand how to run internal and external in-situ moulds	7	35
Total		20	100

Test 4: Unit 312 Applying plastering materials to detailed interiors
Duration: 40 minutes

Unit	Outcome	Number of questions	%
312	1 Understand how to interpret information to apply plastering materials to detailed interiors	3	15.8
	3 Understand how to select and prepare materials for detailed interior work	6	31.6
	5 Understand how to apply one, two and three-coat plastering to curved surfaces	6	31.6
	7 Understand how to apply one, two and three-coat plastering to piers and beams	4	21.0
Total		19	100

Test 5: Unit 313 Applying plastering materials to detailed exteriors
Duration: 40 minutes

Unit	Outcome	Number of questions	%
313	1 Understand how to interpret information to apply plastering materials to exteriors	3	15
	3 Understand how to select and prepare materials for detailed exteriors	10	50
	5 Understand how to apply plastering materials to detailed exteriors	7	35
Total		20	100

Test 6: Unit 314 Producing reverse moulds for detailed fibrous plaster and cement casting

Duration: 30 minutes

Unit	Outcome	Number of questions	%
314	1 Understand how to interpret information to produce reverse moulds for detailed fibrous plaster and cement casting	3	20
	3 Understand how to select components, tools, equipment and materials to produce reverse moulds for detailed fibrous plaster and cement casting	6	40
	5 Understand how to produce reverse moulds for detailed fibrous plaster and cement casting	6	40
Total		15	100

Test 7: Unit 315 Producing and fixing detailed fibrous plaster and cement casts

Duration: 40 minutes

Unit	Outcome	Number of questions	%
315	1 Understand how to interpret information to cast and fix detailed fibrous plasterwork	3	14.3
	3 Understand how to select components, tools, equipment and materials to cast and fix detailed fibrous plasterwork	4	19.1
	5 Understand how to cast detailed fibrous plasterwork	7	33.3
	7 Understand how to fix and finish detailed fibrous plasterwork	7	33.3
Total		21	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 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.

Beam case	A fibrous plaster cast surrounding a beam.
Bracketing	Timber or metal brackets for the running of in-situ cornice.
Capital	Classical decorative feature at the top of a column.
Coffered ceiling	Pattern of sunken square panels on a ceiling.
Cold pour	Consisting of two separate chemicals which when mixed produce a silicone rubber material for producing moulds.
Concave	Curving in or hollowed inward.
Convex	Curving out or bulging outward.
Corbel	Classical decorative bracket used for supporting an arch.
Cornice	The uppermost part of an entablature or decorative moulding at the top of a wall.
Entablature	Classical decorative feature spread horizontally above columns, resting on capitals, made up of architrave, frieze and cornice.
Entasis	Convex curve for aesthetic purposes.
Fluted columns/pilasters	Classical decorative 'groove' feature, the number of flutes being determined by the order of architecture.
Frieze	Plain or decorative horizontal part of an entablature between the cornice and architrave.

Gig stick	A timber “arm” fixed to a running mould, for producing circular moulds and arches.
Hot pour	PVC material melted in a machine at high temperature, used for producing moulds.
Loose piece mould	Used when a cornice contains an undercut.
Lunette	An intersecting barrel.
Peg mould	A type of running mould for running on curved rules.
Plasterers oval	An elliptical arch formed from four centres.
Raking	An angle which is neither horizontal or vertical-associated with running in-situ cornice on staircases for example.
Squeeze	A method of obtaining a reverse profile.
Trammel	A piece of equipment, constructed from timber, containing grooves in the form of a cross on which a gig stick runs along to form arches.
Triglyph	Found on a Doric frieze, consisting of a square or rectangular block with vertical grooves or channels.

Unit 201

Health, safety and welfare in construction

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.

Unit 301

Principles of organising, planning and pricing construction work

Level:	6
Credit value:	7
Assessment requirements specified by a sector or regulatory body:	This unit is endorsed by ConstructionSkills.
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• organise the building process and communicate the design to work colleagues and others.

Learning outcome
The learner will: 1. understand different types of drawn information in construction.
Assessment criteria
The learner can: 1.1 compare advantages and disadvantages of computer-aided design (CAD) programs to traditional drawing methods 1.2 explain information required to produce orthographic projection drawings 1.3 explain the process and purpose of producing a schedule from a drawing 1.4 explain the benefits of isometric projection drawings 1.5 explain information required to produce isometric projection drawings.

Range
<p>Information Room dimensions, heights, width, sizes, heights and positions of walls, doors and window specifications.</p> <p>Benefits Pictorial view of an object, assembly or design. Helps the client, customer, supplier or non-technical person understand how the finished product will look or what is required.</p> <p>Information (AC1.5) Isometric axis, positioning and required view of the object, lines or surfaces relative to isometric axis. Object dimensions and scale.</p>

Learning outcome
<p>The learner will:</p> <ol style="list-style-type: none"> 2. understand energy efficiency and sustainable materials for construction.
Assessment criteria
<p>The learner can:</p> <ol style="list-style-type: none"> 2.1 evaluate the uses of thermally insulated materials 2.2 describe construction methods used to insulate against heat loss and gain 2.3 calculate thermal values of wall construction 2.4 explain the purpose of an Energy Performance Certificate (EPC) 2.5 describe sustainable materials and their use in construction.

Range
<p>Materials Polyisocyanurate (PIR), expanded polystyrene (EP) fibre glass, mineral wool, double glazing, multi-foil.</p> <p>Wall construction Cavity, solid and timber frame.</p> <p>Sustainable materials Locally sourced, managed timber (FSC), lime, sheep wool, recycled materials, bamboo, straw, earth, cob.</p>

Learning outcome
The learner will: 3. understand how to estimate quantities and price work for construction.
Assessment criteria
The learner can: 3.1 describe how to estimate quantities of construction materials 3.2 describe information required to prepare a materials list using a schedule 3.3 explain the purpose of preferred suppliers lists when ordering materials 3.4 explain the purpose of the Bill of quantities 3.5 explain the purpose of the tendering process 3.6 explain the difference between quoting and estimating 3.7 calculate waste percentages for a construction task 3.8 describe the information required to prepare a quote .

Range
Quote Labour, materials and VAT.

Learning outcome
The learner will: 4. understand how to plan work activities for construction.
Assessment criteria
The learner can: 4.1 outline the benefits of planning the sequence of material and labour requirements 4.2 outline advantages and disadvantages of purchasing or hiring plant and equipment 4.3 identify planning methods 4.4 identify information required to produce a gantt chart for a building project.

Range
Material and labour requirements Programmes of work, stock systems, critical path analysis, lead times, schedules.
Planning methods Bar, gantt chart, critical path analysis.

Learning outcome

The learner will:

5. understand how to communicate effectively in the workplace.

Assessment criteria

The learner can:

- 5.1 explain the purpose of **site documentation**
- 5.2 identify information to create an agenda for a meeting
- 5.3 explain information required to prepare a tool box talk and site induction
- 5.4 explain the purpose of a site survey and the information required to prepare a defects list
- 5.5 describe information required to prepare written **communications** to resolve **problems**.

Range**Site documentation**

Organisation chart, method statement, risk assessment, manufacturers technical information, delivery notes, variation orders, permits to work, diaries, minutes, memos.

Communication methods

Letters, email, memos.

Problems

Delivery, materials, quality, human resources.

Unit 311

Running in-situ moulds

Level:	6
Credit value:	12
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to form, set out and run in-situ moulds

Learning outcome
The learner will: 1. understand how to interpret information to form and set out in-situ moulds.
Assessment criteria
The learner can: 1.1 explain the purpose of detailed specifications 1.2 describe different types of detailed drawings 1.3 describe different types of repair and conservation work 1.4 identify types of calculations for quantities of materials 1.5 explain the purpose of schedules for materials 1.6 explain the process of forming moulds and templates from detailed drawings 1.7 explain the process of forming moulds and templates from existing mouldings.

Range
Drawings Block plan, site plan, elevation, detailed drawing, 1:1/full size, section through.
Repair and conservation work Repair mouldings, ceiling consolidation.
Calculations Linear, volume, area, Pi.
Process (1.6) Forming running moulds.
Process (1.7) Sample mould/squeeze.

Learning outcome
The learner will: 2. be able to interpret information to form and set out in-situ moulds.

Assessment criteria

The learner can:

- 2.1 interpret information relating to detailed drawings and specifications
- 2.2 comply with specifications and schedules for forming and setting out in-situ moulds
- 2.3 interpret manufacturers' information relating to in-situ moulds
- 2.4 calculate quantities of materials
- 2.5 form in-situ moulds and templates from detailed drawings
- 2.6 form in-situ moulds and templates from existing mouldings
- 2.7 report discrepancies from drawings, specifications and schedules to authorised personnel
- 2.8 follow current environmental and relevant health and safety legislation.

Learning outcome

The learner will:

3. understand how to prepare for running in-situ moulds.

Assessment criteria

The learner can:

- 3.1 identify types of **Personal Protective Equipment (PPE)** required for running in-situ moulds
- 3.2 describe **tools** and **access equipment** used for running in-situ moulds
- 3.3 describe types of **internal and external plastering materials**
- 3.4 describe methods of fixing running rules
- 3.5 explain the **process** of preparing to form **curved mouldings** and raking sections
- 3.6 identify different types of **bracketing**
- 3.7 describe **methods** of protecting the working area.

Range

Personal Protective Equipment (PPE)

Goggles, gloves, steel toe cap boots, helmet.

Tools

Small tool/leaf tool, gauging trowel, splash brush/brushes, mixing bowls, buckets, joint rule, hawk.

Access Equipment

Hop-up, trestle, tubular scaffolding, tower scaffolding.

Internal and external plastering materials

Plaster, lime putty (hydraulic and non-hydraulic), sand, cement, additives (retarder, water-proofer, plasticiser, frost-proofer).

Process

For curved mouldings:

- setting out
- centre points

- gig stick
- timber template
- trammel
- plasterer's oval
- peg mould.

For raking sections:

- setting out
- profile.

Curved mouldings

Gothic arches, Tudor arches, elliptical, semi-circular, curved cornices.

Bracketing

Scotch, timber, EML (stainless steel, galvanised), suitable fixings.

Methods

Polythene, tarpaulin, barriers, boarding, signage.

Learning outcome

The learner will:

4. be able to prepare for running in-situ moulds.

Assessment criteria

The learner can:

- 4.1 select correct PPE for running in-situ moulds
- 4.2 select tools and access equipment for running in-situ moulds
- 4.3 protect the work and surrounding area
- 4.4 fix, level and position running rules
- 4.5 mix plastering materials in sequence
- 4.6 follow current environmental and relevant health and safety legislation.

Learning outcome

The learner will:

5. understand how to run internal and external in-situ moulds.

Assessment criteria

The learner can:

- 5.1 explain the importance of running the core
- 5.2 describe the process of running the finished profile
- 5.3 describe the process of producing **short breaks**
- 5.4 describe the process of forming mitres and returns
- 5.5 explain the **process** of forming **curved mouldings** and raking sections
- 5.6 explain the importance of cleaning the work area and removing waste materials.

Range

Short breaks

Stopped returns (run cast).

Process

For curved mouldings:

- template
- muffle
- run core.

For raking sections:

- run finish plaster
- run pieces on bench
- fix in place
- form mitres.

Curved mouldings

Gothic arches, Tudor arches, elliptical, semi-circular.

Learning outcome

The learner will:

6. be able to run in-situ moulds and form joints.

Assessment criteria

The learner can:

- 6.1 produce risk assessments for running in-situ moulds
- 6.2 form muffle for running core to template
- 6.3 run finished profiles
- 6.4 form internal and external mitres and returns
- 6.5 form curved mouldings
- 6.6 clean work area and remove waste materials
- 6.7 follow current environmental and relevant health and safety legislation.

Unit 312

Applying plastering materials to detailed interiors

Level:	6
Credit value:	12
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to prepare and select equipment and materials for detailed interior work and how to apply one, two and three-coat plastering to curved surfaces.

Learning outcome
The learner will: 1. understand how to interpret information to apply plastering materials to detailed interiors.
Assessment criteria
The learner can: 1.1 explain the purpose of detailed specifications 1.2 describe different types of detailed drawings 1.3 explain the purpose of schedules for materials 1.4 identify types of calculations for quantities of materials.

Range
Drawings Layout, block plan, as-built drawings, elevation, reflected ceiling plan, detailed drawing.
Calculations Linear, volume, area, Pi.

Learning outcome
The learner will: 2. be able to interpret information to apply plastering materials to detailed interiors.
Assessment criteria
The learner can: 2.1 interpret information relating to drawings and specifications 2.2 comply with specifications and schedules 2.3 interpret manufacturers' data sheets and information relating to applying plastering materials to detailed interiors 2.4 calculate quantities of materials 2.5 report discrepancies from drawings, specifications and schedules 2.6 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 3. understand how to select and prepare materials for detailed interior work.
Assessment criteria
The learner can: 3.1 explain the effects of using out-of-date plasters 3.2 describe the importance of storing interior plasters 3.3 evaluate materials used for restoration work 3.4 state the importance of ensuring the compatibility of backgrounds and plastering materials 3.5 describe types of metal lathing 3.6 describe types of plasterboard 3.7 describe the limitations of different types of materials .

Range
Effects Flash set, no set, poor adhesion , poor strength, cost, time, damage to tools and equipment.
Materials Lime and cement based backing plasters, lime (hydraulic and non-hydraulic), timber laths, fibres (natural and synthetic), aggregates, fixings.
Metal lathing Rib, diamond, coil, high rib.
Plasterboard Acoustic, fire retarding, moisture resistant, thermal, standard, impact, vapour control.
Materials Sand, cement, lime, gypsum setting plasters, lightweight backing coats, beads, plasterboards.

Learning outcome
The learner will: 4. be able to select and prepare equipment and materials for detailed interior work.
Assessment criteria
The learner can: 4.1 select materials for detailed interior work 4.2 comply with specifications for detailed interior work 4.3 select hand and power tools for detailed interior work 4.4 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 5. understand how to apply one, two and three-coat plastering to curved surfaces.
Assessment criteria
The learner can: 5.1 explain methods of setting out to form concave and convex surfaces 5.2 describe the process of preparing background surfaces 5.3 describe methods of applying one, two and three-coat plastering to detailed interiors 5.4 explain methods of fixing beads and trims 5.5 explain the use of Expanded Metal Lath (EML) in detailed interior work 5.6 evaluate setting, curing and hardening times for plasterwork.

Range
Process Dubbing out (for excessive thicknesses), key compatibility.
Methods (5.3) Scratch coat/pricking up coat, floating coat, setting/finish coats, broad screed method, plumb and dot.
Methods (5.4) Galvanised fixings, dry wall screws, plaster dabs.

Learning outcome
The learner will: 6. be able to apply one, two and three-coat plastering to curved surfaces.
Assessment criteria
The learner can: 6.1 produce risk assessments for applying one, two and three-coat plastering to curved surfaces 6.2 set out curved surfaces 6.3 prepare background surfaces 6.4 install Expanded Metal Lath (EML) 6.5 form curved surfaces using pre-formed beads and trims 6.6 mix plastering materials 6.7 apply and finish one, two and three-coat work to curved surfaces 6.8 form curved surfaces without pre-formed beads and trims (hard angles) 6.9 use correct access equipment for work 6.10 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 7. understand how to apply one, two and three-coat plastering to piers and beams.
Assessment criteria
The learner can: 7.1 explain methods of setting out to form piers and beams 7.2 explain the benefits of using Expanded Metal Lath (EML) in detailed interior work 7.3 explain the benefits of using plasterboard in detailed interior work 7.4 describe methods of applying one, two and three-coat plastering to piers and beams.

Range
Piers and beams Independent piers, attached piers, curved, in line, entased.
Expanded Metal Lath (EML) High rib, diamond, coil, rib.
Methods Setting out in-line piers and wall area.

Learning outcome

The learner will:

8. be able to apply one, two and three-coat plastering to piers and beams.

Assessment criteria

The learner can:

- 8.1 produce risk assessments for applying one, two and three-coat plastering to piers and beams
- 8.2 set out piers and beams
- 8.3 prepare backgrounds with high and low suction
- 8.4 install Expanded Metal Lath (EML)
- 8.5 mix plastering materials
- 8.6 apply and finish one, two and three-coat work to detailed interior work
- 8.7 form external angles using pre-formed beads and trims
- 8.8 form external angles without pre-formed beads and trims (hard angles)
- 8.9 use correct access equipment for work
- 8.10 follow current environmental and relevant health and safety legislation.

Unit 313

Applying plastering materials to detailed exteriors

Level:	6
Credit value:	13
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to prepare, and select equipment for exterior work and how to apply plastering materials for exterior work.

Learning outcome
The learner will: 1. understand how to interpret information to apply plastering materials to exteriors.
Assessment criteria
The learner can: 1.1 explain the purpose of detailed specifications 1.2 describe different types of detailed drawings 1.3 explain the purpose of schedules for materials 1.4 identify types of calculations for quantities of materials.

Range
Drawings Block plan, elevation, detailed drawing, section through.
Calculations Linear, volume, area, Pi.

Learning outcome
The learner will: 2. be able to interpret information to apply plastering materials to exteriors.
Assessment criteria
The learner can: 2.1 interpret information relating to drawings and specifications 2.2 comply with specifications and schedules 2.3 interpret manufacturers' data sheets and information relating to applying plastering materials to detailed exteriors 2.4 calculate quantities of materials 2.5 report discrepancies from drawings, specifications and schedules 2.6 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 3. understand how to select and prepare materials for detailed exteriors.
Assessment criteria
The learner can: 3.1 explain the effects of adverse weather conditions on materials 3.2 describe the importance of storing exterior materials 3.3 describe the importance of ensuring the compatibility of backgrounds and rendering coat 3.4 explain the benefits of using modern pre-mixed renders over traditional renders 3.5 evaluate materials used for restoration work 3.6 describe the characteristics of different types of materials 3.7 explain the limitations of different types of materials 3.8 describe different types of tests for sand quality 3.9 describe the different types of additives 3.10 evaluate the uses of trims, beads and metal lath 3.11 identify tools and equipment required for detailed exteriors.

Range
Modern pre-mixed renders Rigid insulation, fibre glass mesh, preparatory key/stipple coats, surface treatments, primers, polymer-based renders, premixed through colour renders, multicoat render systems, insulated render systems.
Materials (3.5) Aggregates, lime (hydraulic and non-hydraulic), adhesives, pozzolan, calcium clay, stainless steel metal lathing, fixings, riven laths.
Materials (3.6) Sand, cement, lime, additives (water-proofers, plasticisers, frost-proofers, bonding agents, reinforcement fibres, colouring, retarders/accelerators), proprietary finishes, metal lathing, beads and

trims, aggregates (pebbledash, chippings), insulation boards, fixings, adhesives, polymer renders, insulated renders.

Materials (3.7)

Sand, cement, lime, additives, proprietary finishes, metal lathing, beads and trims, aggregates (pebbledash, chippings).

Tests

Slump, graded, silt, sieve.

Additives

Water-proofers, plasticisers, frost-proofers, bonding agents, reinforcement fibres, colouring, retarders/accelerators.

Learning outcome

The learner will:

- 4. be able to select and prepare materials for detailed exteriors.

Assessment criteria

The learner can:

- 4.1 select materials for external work
- 4.2 select modern and traditional render materials
- 4.3 comply with specifications for external work
- 4.4 select hand tools and equipment for external work
- 4.5 follow current environmental and relevant health and safety legislation.

Learning outcome

The learner will:

- 5. understand how to apply plastering materials to detailed exteriors.

Assessment criteria

The learner can:

- 5.1 describe the process of preparing background surfaces for detailed exteriors
- 5.2 explain correct application of plastering materials
- 5.3 explain methods of applying plain, textured and decorative **finishes**
- 5.4 explain methods of fixing bell cast beads, trims and EML for detailed exteriors
- 5.5 explain methods of forming quoin and key stones
- 5.6 explain **methods** of forming angles and bells with or without pre-formed beads and trims
- 5.7 explain the importance of compatibility between backgrounds and external plastering materials
- 5.8 evaluate setting, curing and hardening times for detailed exteriors.

Range
Finishes Plain, ashlar finishes, dry dash, wet dash/rough casting, textured, latex, proprietary, cottage, scraped texture, Tyrolean.
Methods Straight edges, battens, detailed zinc templates, nails, featheredge, spirit level, reverse rule.

Learning outcome
The learner will: 6. be able to apply plastering materials to detailed exteriors.
Assessment criteria
The learner can: 6.1 produce risk assessments for applying plastering materials to detailed exteriors 6.2 prepare backgrounds with high and low suction 6.3 mix external plastering materials 6.4 form external bellcasts using preformed beads 6.5 form external render finishes without using preformed beads 6.6 apply plain, textured and decorative finishes 6.7 use correct access equipment for the work 6.8 follow current environmental and relevant health and safety legislation.

Unit 314

Producing reverse moulds for detailed fibrous plaster and cement casting

Level:	6
Credit value:	12
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to produce reverse moulds for detailed fibrous plaster and cement casting

Learning outcome
The learner will: 1. understand how to interpret information to produce reverse moulds for detailed fibrous plaster and cement casting.
Assessment criteria
The learner can: 1.1 explain the purpose of detailed specifications 1.2 describe different types of detailed drawings 1.3 explain the purpose of schedules for materials 1.4 identify types of calculations for quantities of materials.

Range
Drawings Elevations, block plan, geometrical setting out of moulding outlines, 1:1/full scale (including from squeeze), component, reflected plan, detailed drawing.
Calculations Linear, volume, area, Pi.

Learning outcome

The learner will:

2. be able to interpret information to produce reverse moulds for detailed fibrous plaster and cement casting

Assessment criteria

The learner can:

- 2.1 interpret information relating to drawings and specifications
- 2.2 comply with specifications and schedules
- 2.3 interpret manufacturers' data sheets and information relating to detailed fibrous plaster and cement casting
- 2.4 calculate quantities of materials
- 2.5 report discrepancies from drawings, specifications and schedules
- 2.6 follow current environmental and relevant health and safety legislation.

Learning outcome

The learner will:

3. understand how to select components, tools, equipment and materials to produce reverse moulds for detailed fibrous plaster and cement casting.

Assessment criteria

The learner can:

- 3.1 evaluate types of components and models used to produce reverse moulds for detailed fibrous plaster and cement casting
- 3.2 explain the importance of preparing models for producing reverse moulds
- 3.3 describe **tools and equipment** used to produce reverse moulds for detailed fibrous plaster and cement casting
- 3.4 evaluate types of **materials** used to produce reverse moulds for detailed fibrous plaster and cement casting.

Range**Tools and equipment**

Busks, small tool, picking tool, gauging trowels, mixing bowls/vessels, scrapers, benches, clay board, files, tin snips, callipers, French plane, scribes, slosh tank, lath tank, running rules.

Materials

Timber, Zinc, sand, cements, French chalk, release agents/grease, casting plasters, canvas/laths, clay, sealants/shellac, cold pour rubbers, hot melt compound (HMC), retarders, accelerators, Glass Reinforced Gypsum (GRG), fibreglass, chop strands.

Learning outcome
The learner will: 4. be able to select components, tools, equipment and materials to produce reverse moulds for detailed fibrous plaster and cement casting
Assessment criteria
The learner can: 4.1 select materials to produce reverse moulds for detailed fibrous plaster and cement casting 4.2 select tools and equipment to produce reverse moulds for detailed fibrous plaster and cement casting 4.3 select components for producing reverse moulds for detailed fibrous plaster and cement casting 4.4 report discrepancies from drawings, specifications and schedules 4.5 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 5. understand how to produce reverse moulds for detailed fibrous plaster and cement casting
Assessment criteria
The learner can: 5.1 evaluate types of reverse moulds 5.2 describe methods of producing reverse moulds 5.3 explain the purpose of using release agents and sealants on models 5.4 explain the purpose of reinforcements and positioning for producing reverse moulds

Range
Reverse moulds Run reverse mould, piece mould, case mould, flood mould, insertion mould, run loose piece mould.
Methods Running, spinning, turning, forming, pouring, laminating.
Release agents and sealants Boiled linseed oil, shellac, wax, tallow, paraffin.

Learning outcome
The learner will: 6. be able to produce reverse moulds for detailed fibrous plaster and cement casting
Assessment criteria
The learner can: 6.1 produce risk assessments for casting detailed fibrous plasterwork 6.2 produce running moulds and form models and reverse moulds 6.3 position, joint and secure components as specified 6.4 gauge and mix casting plasters 6.5 apply casting plasters and reinforcement 6.6 release reverse mould 6.7 follow current environmental and relevant health and safety legislation.

Unit 315

Producing and fixing detailed fibrous plaster and cement casts

Level:	6
Credit value:	13
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to cast and fix detailed fibrous plasterwork.

Learning outcome
The learner will: 1. understand how to interpret information to cast and fix detailed fibrous plasterwork
Assessment criteria
The learner can: 1.1 explain the purpose of detailed specifications 1.2 describe different types of detailed drawings 1.3 explain the purpose of schedules for materials 1.4 identify types of calculations for quantities of materials.

Range
Drawings Elevations, block plan, geometrical setting out of moulding outlines, 1:1/full scale (including from squeeze), component, reflected plan.
Calculations Linear, volume, area, Pi.

Learning outcome
The learner will: 2. be able to interpret information to cast and fix detailed fibrous plasterwork
Assessment criteria
The learner can: 2.1 interpret information relating to drawings and specifications 2.2 comply with specifications and schedules 2.3 interpret manufacturers' data sheets and information relating to casting and fixing detailed fibrous plasterwork 2.4 calculate quantities of materials 2.5 report discrepancies from drawings, specifications and schedules 2.6 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 3. understand how to select components, tools, equipment and materials to cast and fix detailed fibrous plasterwork
Assessment criteria
The learner can: 3.1 evaluate types of components used to cast and fix detailed fibrous plasterwork 3.2 describe tools and equipment used to cast and fix detailed fibrous plasterwork 3.3 evaluate types of materials used to cast and fix detailed fibrous plasterwork.

Range
Tools Chalk line, busks, small tools, gauging trowels, splash brush, cordless drill/driver, lath hammer, joint rules, water level, laser level, spirit level, hand saw, top cutters, box rule, square, canvas knife.
Equipment Benches, plaster boxes, lath tank, slosh tank, vibrating tables, canvas bin, cleats.
Materials Sand, cement, lime, French chalk, release agents, casting plaster, autoclaved plaster, canvas/laths, sealants/shellac, tie wire, retarders, accelerators, screws, dowels, adhesive, epoxy resin, methylated spirits, paraffin, tallow.

Learning outcome
The learner will: 4. be able to select components, tools, equipment and materials to cast and fix detailed fibrous plasterwork
Assessment criteria
The learner can: 4.1 select materials to cast and fix detailed plasterwork 4.2 select tools and equipment to cast and fix detailed plasterwork 4.3 select components for casting and fixing detailed plasterwork 4.4 report discrepancies from drawings, specifications and schedules 4.5 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 5. understand how to cast detailed fibrous plasterwork
Assessment criteria
The learner can: 5.1 evaluate different types of reverse moulds 5.2 describe methods of casting 5.3 evaluate the purpose of different types of release agents 5.4 explain the purpose of reinforcements and positioning in casting detailed fibrous plasterwork 5.5 explain the purpose of aggregates and mix proportions 5.6 explain the use of additives for detailed fibrous plasterwork 5.7 describe methods of storing and curing finished casts.

Range
Reverse moulds Run reverse mould, piece mould, case mould, flood mould, insertion mould, run loose piece mould.
Methods Sand and cement, fibrous plaster.
Release agents Mould oil, talc, tallow, plasterer's grease, sprayable lubricating oil.

Learning outcome
The learner will: 6. be able to cast detailed fibrous plasterwork
Assessment criteria
The learner can: 6.1 produce risk assessments for casting detailed fibrous plasterwork 6.2 prepare reverse moulds for casting 6.3 cut reinforcement and canvas 6.4 gauge and mix materials 6.5 apply materials and reinforcement to take cast 6.6 position casts for drying and storage 6.7 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 7. understand how to fix and finish detailed fibrous plasterwork
Assessment criteria
The learner can: 7.1 explain the different types of detailed fibrous plasterwork 7.2 evaluate the different methods of fixing and finishing fibrous plasterwork 7.3 describe tools and equipment used for fixing and finishing 7.4 explain the importance of preparing fixing points 7.5 explain the purpose of checking backgrounds 7.6 explain the importance of plumbing and aligning casts.

Range
Detailed fibrous plasterwork Cornice, corbels, frieze, arches, architrave, entablature, lighting trough, enriched mouldings, vaulted mouldings, entasised columns, reeded and fluted pilasters, pediments, ceiling roses, coffered ceilings, lunettes, dome, triglyphs, niches, five orders of architecture.
Methods Screw, wire, wad, adhesive.
Tools Chalk line, busks, small tools, gauging trowels, splash brush, cordless drill/driver, lath hammer, joint rules, water level, laser level, spirit level, hand saw, top cutters, box rule, square, canvas knife.
Equipment Benches, plaster boxes, lath tank, sloss tank, vibrating tables, canvas bin, cleats.
Backgrounds Suspended (MF primary system, concrete), solid (timber, concrete, block, brick, metal stud).

Learning outcome
The learner will: 8. be able to fix and finish detailed fibrous plasterwork
Assessment criteria
The learner can: 8.1 produce risk assessments for fixing detailed fibrous plasterwork 8.2 prepare materials for fixing and finishing 8.3 select tools and equipment for fixing and finishing 8.4 position and secure fibrous casts 8.5 stop in and finish 8.6 use correct access equipment for work 8.7 follow current environmental and relevant health and safety legislation.



Appendix 1 Relationships to other qualifications

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.

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

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 is a leader in global skills development. Our purpose is to help people and organisations to develop their skills for personal and economic growth. Made up of City & Guilds, City & Guilds Kineo, The Oxford Group and ILM, we work with education providers, businesses and governments in over 100 countries.

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 learners 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 learners working towards a City & Guilds qualification, or for internal administration purposes
- learners 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

www.cityandguilds.com