

Diploma in Site Carpentry at SCQF Level 6 (6806-33)

February 2016 Version 2



Qualification at a glance

Subject area	Construction
City & Guilds number	6806-33
Age group approved	16-18, 19+
Entry requirements	None
Assessment	Multiple choice/assignment
Support materials	Centre handbook Assessor guidance Task manual
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	City & Guilds number
Diploma in Site Carpentry at SCQF Level 6	6806-33

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



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1 Introduction

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

Area	Description
Who is the qualification for?	It is for candidates who work or want to work as a Site Carpenter 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 Site Carpentry.</p> <p>It covers the following skills:</p> <ul style="list-style-type: none">• Carry out first fix flooring and roofing• Carry out second fixing operations• Carry out first fix roofing and stairs• Carry out second fixing double doors and mouldings• Set up and use fixed and transportable machinery
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?	<p>It allows candidates to progress into employment or to the following City & Guilds qualification:</p> <ul style="list-style-type: none">• Diploma in Wood Occupations at SCQF Level 6

Structure

To achieve the **Diploma in Site Carpentry at SCQF Level 6 (6806-33)**, learners must achieve **67** credits from the mandatory units below.

City & Guilds unit number	Unit title	Credit value
Unit 201	Health, safety and welfare in construction	7
Unit 207	Carry out first fix flooring and roofing	14
Unit 209	Carry out second fixing operations	9
Unit 301	Principles of organising, planning and pricing construction work	7
Unit 306	Carry out first fix roofing and stairs	10
Unit 307	Carry out second fixing double doors and mouldings	7
Unit 308	Set up and use fixed and transportable machinery	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.

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. A Bench vice will be available to each candidate. Facilities for grinding and sharpening hand tools will be available. Centres will have special designated areas within Carpentry and Joinery workshop (cubicles or project areas) allowing candidates to practice the requirements of the units and carry out the Practical Assignments. There must also be a fixed or transportable circular saws (rip and crosscut), surface planer and thicknesser (may be combined) morticer and narrow bandsaw. All of which shall have suitable tooling to carry out the unit and assignment tasks, be to industrial standards and comply with current regulations.

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 qualification. 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.

Learner 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 learners under 16 as these qualifications are not approved for under 16s.



3 Delivering the qualification

Initial assessment and induction

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

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

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

Support materials

The following resources are available for this qualification:

Description	How to access
Assessor guidance	www.cityandguilds.com
Task manual	www.cityandguilds.com
Qualification approval form	www.cityandguilds.com/construction
SmartScreen	www.smartscreen.co.uk



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.
207	Carry out first fix flooring and roofing	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
209	Carry out second fixing operations	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
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.

Unit	Title	Assessment method	Where to obtain assessment materials
306	Carry out first fix roofing and stairs	<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
307	Carry out second fixing double doors and mouldings	<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
308	Set up and use fixed and transportable machinery	<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: 60 minutes

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 207 Carry out first fix flooring and roofing

Duration: 40 minutes

Unit	Outcome	Number of questions	%
207	1 Know how to construct roofing structures	9	36
	3 Know how to fix verge and eave components	4	16
	5 Know how to lay floor joists	8	32
	7 Know how to fit and fix joist coverings	4	16
	Total	25	100

Test 3: Unit 209 Carry out second fixing operations
Duration: 40 minutes

Unit	Outcome	Number of questions	%
209	1 Know how to install doors and ironmongery	6	24
	3 Know how to fix mouldings	7	28
	5 Know how to install service encasements and cladding	5	20
	7 Know how to install kitchen units, worktops and fitments	7	28
Total		25	100

Test 4: 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 5: Unit 306 Carry out first fix roofing and stairs
Duration: 30 minutes

Unit	Outcome	Number of questions	%
306	1 Understand how to construct a traditional cut roof	15	75
	3 Understand how to fix a flight of stairs with a quarter turn	5	25
Total		20	100

Test 6: Unit 307 Carry out second fixing double doors and mouldings

Duration: 30 minutes

Unit	Outcome	Number of questions	%
307	1 Understand how to install double doors and ironmongery	6	33
	3 Understand how to install curved and raking mouldings	12	67
Total		18	100

Test 7: Unit 308 Set up and use fixed and transportable machinery

Duration: 40 minutes

Unit	Outcome	Number of questions	%
308	1 Understand how to inspect and maintain fixed and transportable machinery	13	52
	3 Understand how to use fixed and transportable machinery efficiently and safely	12	48
Total		25	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

Term	Definition
Approved Document K	Section of the Building Regulations that covers protection from falling.
Balustrade	Collective name for the complete assembly of handrails, baserails, newels, spindles, infill and newel caps.
Close couple roof	This roof incorporates a main tie which is secured to the feet of each rafter and spans the width of the building.
Closed stair strings	A staircase in which the ends of the treads are routed or housed so that they are not visible outside the stair.
Collared roof	A collar roof incorporates a horizontal roof member positioned approximately two thirds of the distance down from the ridge to the wall plate line.
Cut stair string	A string with the upper part of the string cut away to follow the shape of the treads
Draw-bore pins	Holes are drilled through a mortise and tenon about 3mm out of line so that a tapered steel pin (Draw-bore pins) are driven through the holes draws the joint together.
Elliptical arch	An arch having the shape of half an ellipse; in its construction, the ellipse is often

	approximated by three adjoining circular arcs.
French doors	Two adjoining doors that have glass panes from top to bottom and are hinged at opposite sides of a doorway so that they open in the middle
Geometrical stairs	A geometrical stairway is a winding stairway and is so designed that the tread at the line of travel of all steps is the same width. Commonly known (incorrectly) as a "spiral" staircase. A curved stair of regular shape, eg circular or elliptical in plan.
Gothic arch	A Gothic arch is a sharp-pointed arch, formed of two arc segments
Hammer headed key joint	Is used where there is no straight member to form the tenon. Two mortise sockets are formed one in each piece and a separate tenon piece called a key is formed to fit. For example a door with a shaped head.
Hammer headed tenon	Is used to join a curved member to a straight member such as a curved head member to a jamb.
Handrail bolts	A metal rod with threads and a nut at each end; used to bolt together two surfaces in a butt joint.
Jack rafters	Jack rafters are the short rafters that run from the hip or valley rafter to the wall plate. It is these rafters that form the lower portion of a hip or a valley.
Joiners dogs	A small "staple" shaped device, designed to straddle a joint, and pull the joint tightly together during the glue up process, also called a 'Pinch Dog'.
Kerfed	Saw cuts to one side of a piece of wood and bending it towards that side, a convenient way curving the risers of a bullnose step
Mortice latch/rebate kit	Allows a mortise lock to be fitted to double doors that have been rebated at their meeting stiles.
Purlins	A purlin is a strong large sectioned timber member which is fixed to the common rafters midway between the ridge and the wall plate and runs parallel to the wall and the ridge.
Raking mouldings	An inclined moulding with horizontal returns
Sprocketed eaves	A wedge-shaped piece of wood nailed to the top of the rafters to reduce the pitch of the roof at the eaves.
Trammel	A lath or batten used to mark out a circular or curve by being pivoted at one end.
Trimmer	These are used to construct a well suitable for the opening of the staircase. The top step fits over a trimmer joist.

Vapour barrier	Is often used to refer to any material for damp proofing, typically a plastic or foil sheet
Wall string	The string of a staircase that is fixed flush with a wall.
Winder tread	Tread with a greater run on one side than the other. Used on circular, spiral or winder staircases.
Wreathed stair string	A curved string or handrail.

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 207

Carry out first fix flooring and roofing

Level:	5
Credit value:	14
Aim:	<p>The aim of this unit is to provide the learner with the knowledge and skills to carry out first fix flooring and roofing work, in accordance with the current health and safety and Building Regulations in both new building projects and refurbishment works.</p> <p>The knowledge acquired by the learner will enable them to distinguish and identify flooring and roofing work, the associated components and materials, and its uses in carpentry and joinery.</p> <p>The skills developed by the learner will include:</p> <ul style="list-style-type: none">• the use of woodworking hand tools and powered hand tools• their associated practical uses in flooring and roofing work to including erecting roofing structures, verge and eaves and installing floor joists.

Learning outcome
The learner will: 1. know how to construct roofing structures
Assessment criteria
The learner can: 1.1 identify types of roofing structures 1.2 identify construction types of roofing structures 1.3 identify component parts of roofing structures 1.4 explain methods of anchoring the roof in accordance with building regulations 1.5 describe the sequence of erecting component parts of roofing structures 1.6 describe the methods of constructing tank stands 1.7 identify tools and fixings used to erect roofing structures 1.8 describe safe methods of using access equipment 1.9 describe the importance of following regulations when using access equipment.

Range
<p>Types Flat, lean to, gable ended, pitched, hipped and valley, cold and warm deck</p> <p>Construction types Trussed rafters (fan, fink, king post and attic, girder, mono, diminishing), common rafters.</p> <p>Component parts Wall plate, rafters, struts, ceiling joists, binders, firrings, noggins, decking, gable ladders, wall straps, truss clips, bracing, joist hangers ties, chords, purlin.</p> <p>Roofing structures Gable ended pitched roof, flat roof.</p> <p>Tools Hammers, screwdrivers, chop saw, handsaw, chisels, drill bits, drills, nail guns, spirit level, plumb bob, try squares.</p> <p>Fixings Screws, nails and proprietary brackets/hangers.</p> <p>Access equipment Proprietary tower, trestles, independent and putlog, proprietary tower scaffold, ladders, platforms/podiums.</p>

Learning outcome
The learner will: 2. be able to construct roofing structures
Assessment criteria
The learner can: 2.1 carry out risk assessment for constructing roofing structures 2.2 select tools and fixings used to construct roofing structures 2.3 select and use access equipment as appropriate for the given task in accordance with current regulations 2.4 erect roofing structures to given specifications 2.5 install timber bracing to given specifications 2.6 follow current environmental and relevant health and safety regulations relevant to constructing roofing structures.

Range
<p>Tools Hammers, screwdrivers, chop saw, handsaw, chisels, drill bits, drills, nail guns, spirit level, plumb bob, try and roofing square.</p> <p>Fixings Screws, nails and proprietary brackets/hangers.</p>

<p>Access equipment Proprietary tower scaffold, ladders, platforms/podiums.</p> <p>Roofing structures Gable ended trussed roof.</p> <p>Specifications Working drawings, given instructions.</p> <p>Regulations Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), Control of Substances Hazardous to Health (COSHH), vibration at work regulations, control of noise at work regulations, working at height regulations current environmental.</p>

<p>Learning outcome</p> <p>The learner will:</p> <p>3. know how to fix verge and eave components</p>
<p>Assessment criteria</p> <p>The learner can:</p> <p>3.1 identify component parts of verges and eaves</p> <p>3.2 describe methods of finishing gable ends</p> <p>3.3 describe methods of finishing eaves</p> <p>3.4 identify tools used to fix gable and eaves finishes.</p>

<p>Range</p> <p>Component parts Fascia, soffit and barge boards, ventilation, tilt fillet, bracketing.</p> <p>Methods of finishing (AC3.2) Flush, overhanging verge.</p> <p>Methods of finishing (AC3.3) Open, closed, flush and projecting.</p> <p>Tools Hammers, screwdrivers, chop saw, handsaw, chisels, drill bits, drills, nail guns, spirit level, plumb bob, try and roofing square, string line.</p>
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<p>Learning outcome</p> <p>The learner will:</p> <p>4. be able to fix verge and eave components</p>
<p>Assessment criteria</p> <p>The learner can:</p> <p>4.1 carry out risk assessment for fixing verge and eave components</p> <p>4.2 select tools to fix verge and eave components</p> <p>4.3 select and use access equipment as appropriate for the given task in accordance with current regulations</p>

4.4	construct and fix gable ladders to given specifications
4.5	fix verge and eave components to given specifications
4.6	follow current environmental and relevant health and safety regulations relating to fixing verge and eave components.

Range
Tools Hammers, screwdrivers, chop saw, handsaw, chisels, drill bits, drills, nail guns, spirit level, plumb bob, try and roofing square, string line
Access equipment Proprietary tower scaffold, ladders, platforms/podiums
Specifications Working drawings, given instructions
Components Fascia, soffit and barge boards, ventilation, tilt fillet, bracketing
Regulations Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), Control of Substances Hazardous to Health (COSHH), vibration at work regulations, control of noise at work regulations, working at height regulations current environmental.

Learning outcome
The learner will: 5. know how to lay floor joists
Assessment criteria
The learner can: 5.1 identify flooring components 5.2 identify methods of supporting joists 5.3 describe methods used to form an opening in a floor 5.4 describe methods of tying the floor in accordance with building regulations 5.5 describe types of strutting used in floor construction and their purpose 5.6 identify safe zones in joists for drilling and notching for services 5.7 describe ways of protecting joists from moisture and decay 5.8 identify tools used to lay floor joists.

Range
Components Joists (common/bridging, trimming, trimmer, trimmed), strutting, I beams
Supporting Built in, wall plates and on joist hangers, sleeper walls
Joists I-beams, pozi joists, stress graded timber joists
Openings Service access, staircases, chimneys and flues
Tying Lateral restraint straps, anchor straps
Types of strutting Solid, herringbone and galvanised steel (proprietary).
Services Gas, water and waste pipes, electric cables and telecommunications.
Ways Ventilation, wrapping joist ends, DPC, treated timber.
Tools Hammers, screwdrivers, chisels, drill bits, drills, spirit level, try squares, straight edge.

Learning outcome
The learner will: 6. be able to lay floor joists
Assessment criteria
The learner can: 6.1 carry out risk assessment for laying floor joists 6.2 select tools to lay floor joists to given specifications 6.3 lay floor joists to given specifications 6.4 fix strutting to given specifications 6.5 trim joists to form a stairwell opening 6.6 follow current environmental and relevant health and safety regulations relating to laying floor joists.

Range
Tools Hammers, screwdrivers, chisels, drill bits, drills, spirit level, try squares, straight edge

Specifications

Working drawings, given instructions

Strutting

Herringbone

Regulations

Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), Control of Substances Hazardous to Health (COSHH), vibration at work regulations, control of noise at work regulations, working at height regulations current environmental.

Learning outcome

The learner will:

7. know how to fix and fit joist coverings

Assessment criteria

The learner can:

7.1 identify **types of joist coverings**

7.2 describe **methods** of fixing joist coverings

7.3 state the method of fixing joist coverings to access **services**

7.4 identify **tools** for fixing joist coverings.

Range**Types of joist coverings**

Timber (softwood, hardwood, tongued and grooved), manufactured flooring panels

Methods

Gluing, screwing, nailing, face fixing, secret fixing

Services

Gas, water and waste pipes, electric cables and telecommunications

Tools

Hand saws, hammers, tape measure, drills, nail punch, screwdrivers, circular saw.

Learning outcome

The learner will:

8. be able to fit and fix joist coverings

Assessment criteria

The learner can:

8.1 carry out risk assessment for fitting and fixing joist coverings

8.2 select **tools** to fit and fix joist coverings

8.3 fit and fix joist coverings to given **specifications**

8.4 follow current environmental and relevant health and safety **regulations** relating to fitting and fixing joist coverings.

Range**Tools**

hand saws, hammers, tape measure, drills, nail punch, screwdrivers

Specifications

Working drawings, given instructions

Regulations

Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), Control of Substances Hazardous to Health' (COSHH), vibration at work regulations, control of noise at work regulations, working at height regulations current environmental.

Unit 209

Carry out second fixing operations

Level:	5
Credit value:	9
Aim:	<p>The aim of this unit is to provide the learner with the knowledge to carry out second fix carpentry and joinery work in accordance with the current health and safety and Building Regulations in new building projects and refurbishment works.</p> <p>The knowledge acquired by the learner will enable them to distinguish and identify second fix work, the associated components and materials, and its uses in carpentry and joinery.</p> <p>The skills developed by the learner will include:</p> <ul style="list-style-type: none">• the use of woodworking hand tools and powered hand tools• their associated practical uses in carpentry and joinery second fix work including doors and ironmongery, mouldings, service encasements and cladding, kitchen units, worktops and fitments.

Learning outcome
The learner will: 1. know how to install doors and ironmongery
Assessment criteria
The learner can: 1.1 describe the characteristics of internal, external and fire rated doors 1.2 identify door ironmongery 1.3 explain the importance of working drawings and schedules 1.4 identify tools used to install doors and fit ironmongery.

Range
Characteristics Standard sizes and thicknesses, panelled, glazed, flush (veneered), fire, match boarded, stable.
Door ironmongery

Butts (brass, steel, cast), tee-hinges, tubular latch, mortice latch, door closers, dead locks, rim locks, cylindrical, Euro locks, three/five levers, security bolts, barrel bolts, escutcheons, intumescent strips, weather seals, letter plates, view holes, door protection plates, threshold cill, screws (brass, steel, slot, pozi, Philips), lever /knob handles.

Tools

Cordless drills, square, chisels, saws, hammers, screwdrivers, spirit level, drill bits, electric router, mallets, marking gauges, holding device, jig saw, and electric drill.

Learning outcome

The learner will:

2. be able to install doors and ironmongery

Assessment criteria

The learner can:

- 2.1 carry out risk assessment for installing **doors** and **ironmongery**
- 2.2 prepare doors for hanging
- 2.3 hang doors and fit ironmongery to given **specifications**
- 2.4 follow current environmental and relevant health and safety and fire **regulations** relating to installing doors and ironmongery.

Range

Doors

Internal, external and fire rated

Door ironmongery

Butts (steel), tee-hinges, tubular latch, mortice latch, door closers, dead locks, rim locks, cylindrical lock, Euro locks, three/five levers, intumescent strips, letter plates, screws (brass, steel, slot, pozi, Philips), lever /knob handles

Specifications

Working drawings, schedules, given instructions

Regulations

Health and Safety at Work act, Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), Control of Substances Hazardous to Health (COSHH), vibration at work regulations, control of noise at work regulations, current environmental.

Learning outcome

The learner will:

3. know how to fix mouldings

Assessment criteria

The learner can:

- 3.1 describe **methods of transferring datums**
- 3.2 identify **types** and purpose of **mouldings**

- 3.3 identify **tools** and materials used to fix mouldings
- 3.4 describe **methods of jointing** and scribing mouldings
- 3.5 describe **methods of fixing** mouldings.

Range
<p>Methods of transferring datums Using laser, spirit level, straight edge</p> <p>Types Picture rail, cornice, skirting board, dado rail, architrave, plinth block, corbels, hardwood, softwood, medium density fibreboard (MDF)</p> <p>Mouldings Square, pencil round, torus, bull nose, splayed, ogee</p> <p>Tools Saws, hammers, mallets, chisels, screwdrivers, marking gauges, square, combination square, sliding bevel, profile combs, spirit level, laser level, holding devices, cordless drills, drill bits and electric mitre saw, coping saw, block plane, nail punch, scribes; materials – nails, screws, adhesives</p> <p>Methods of jointing Mitring (45 degrees, bi-section), heading joints, using hand and power tools</p> <p>Methods of fixing Using nails, screws, adhesives.</p>

Learning outcome
The learner will:
4. be able to fix mouldings
Assessment criteria
The learner can:
4.1 carry out risk assessment for fixing mouldings
4.2 transfer datum points
4.3 cut, scribe, mitre and fix mouldings to given specifications
4.4 follow current environmental and relevant health and safety regulations relating to installing mouldings
4.5 use access equipment in accordance with current legislation.

Range
<p>Mouldings Skirting, architrave, dado and picture rail</p> <p>Specifications Working drawings, given instructions, schedules, methods of jointing (mitring (45 degrees, bi-section), heading joints, using hand and power tools)</p>

Regulations

Health and Safety at Work act, Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), Control of Substances Hazardous to Health (COSHH), vibration at work regulations, control of noise at work regulations, current environmental.

Learning outcome

The learner will:

5. know how to install service encasements and cladding

Assessment criteria

The learner can:

- 5.1 describe **methods** of encasing **services**
- 5.2 identify types of **cladding**
- 5.3 describe **methods** of fixing cladding
- 5.4 identify **tools** and **fixing materials** used to fix cladding.

Range

Methods (AC 5.1)

Using timber framed and solid panels, means of access

Services

Pipes, baths

Cladding

Solid, plywood, tongue and groove, horizontal and vertical boarding, plastic, shiplap

Methods (AC 5.3)

Use of brackets, clips, secret nailing, built-up frames, fixing battens

Tools

Saws, hammers, mallets, chisels, screwdrivers, marking gauges, square, spirit level, laser level, holding devices, cordless drills, drill bits and electric mitre saw

Fixing materials

Nails, screws, adhesives, bolts, cover caps, fixing plugs.

Learning outcome

The learner will:

6. be able to install service encasements and cladding

Assessment criteria

The learner can:

- 6.1 carry out risk assessment for installing service encasements and cladding
- 6.2 transfer datum points
- 6.3 **fix service encasements** and cladding to given **specifications**

- 6.4 follow current environmental and relevant health and safety **regulations** relating to installing **service encasements** and cladding
- 6.5 use access equipment in accordance with current legislation.

Range
<p>Specifications Working drawings, given instructions</p> <p>Fix Plumb, level, secure</p> <p>Service encasements Pipe boxing and bath panels</p> <p>Regulations Health and Safety at Work act, Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), Control of Substances Hazardous to Health (COSHH), vibration at work regulations, control of noise at work regulations, current environmental.</p>

Learning outcome
The learner will: 7. know how to install kitchen units, worktops and fitments
Assessment criteria
The learner can: 7.1 describe the method of assembling wall and floor units 7.2 describe the process of installing wall and floor units 7.3 describe methods of jointing worktops 7.4 describe the method of forming openings in worktops for hobs and sinks 7.5 describe the method of installing fitments 7.6 describe the purpose of manufacturers' instructions and design schedules 7.7 describe methods of detecting services whilst fitting wall and floor units.

Range
<p>Process Position, level, fix (to hollow and solid wall), scribe to wall</p> <p>Methods Use of jointing strip, mitre joints, biscuit jointing and connecting bolts, butt and scribe, using sealants</p> <p>Worktops Post-formed and solid timber</p> <p>Fitments</p>

Pelmets, end panels, plinths and cornice to units, handles, drawers, drawer runners, door hinges

Services

Electric, gas and water pipes.

Learning outcome

The learner will:

8. be able to install kitchen units, worktops and fitments

Assessment criteria

The learner can:

- 8.1 carry out risk assessment for installing kitchen units, worktops and fitments
- 8.2 assemble wall and floor units using appropriate **tools** and **fixings** according to the manufacturers' instructions
- 8.3 install wall and floor units to the given design schedule
- 8.4 **install** post-formed worktops using appropriate **tools** to given **specifications**
- 8.5 form openings in worktops for hobs and sinks using appropriate **tools** to given **specifications**
- 8.6 install **fitments** using appropriate **tools** to given **specifications**
- 8.7 follow current environmental and relevant health and safety **regulations** relating to installing wall, floor units and fitments
- 8.8 use access equipment in accordance with current legislation.

Range

Assemble wall and floor units

Rigid units (fitting doors, handles, shelves and plinths) and self assembly

Tools (AC 8.2)

Cordless drills, set square, chisels, saws, hammers, screwdrivers, spirit and laser level, drill bits, mallets, holding devices, and electric hammer/SDS drill, G/F clamps, quick release clamps

Fixings (AC 8.2)

Connecting bolts, screws, adhesives, sealants

Install

Butt and scribe, jointing strip

Tools (AC 8.4, 8.5, 8.6)

Circular saw, cordless drills, set square, chisels, saws, hammers, screwdrivers, spirit level, drill bits, electric router, mallets, marking gauges, holding device, and electric hammer/SDS drill, worktop jointing jig, biscuit jointer, jig saw, chop saw

Fitments

Pelmets, end panels, plinths and cornice to units, handles, drawers, drawer runners, door hinges

Specifications

Working drawings, given instructions

Regulations

Health and Safety at Work act, Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), Control of Substances Hazardous to Health (COSHH), vibration at work regulations, control of noise at work regulations current environmental, manual handling.

Unit 301

Principles of organising, planning and pricing construction work

Level:	6
Credit value:	7
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
Information (AC1.2) Room dimensions, heights, width, sizes, heights and positions of walls, doors and window specifications, building regulations
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.

Information (AC1.5)

Isometric axis, positioning and required view of the object, lines or surfaces relative to isometric axis. Object dimensions and scale.

Learning outcome

The learner will:

2. understand energy efficiency and sustainable materials for construction

Assessment criteria

The learner can:

- 2.1 evaluate the uses of thermally insulated **materials**
- 2.2 describe **construction methods** used to insulate against heat loss and gain
- 2.3 compare 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**Materials**

Polyisocyanurate (PIR), expanded polystyrene (EP) fibre glass, sheep wool, mineral wool, double glazed units, multi-foil insulation.

construction methods

location of insulation, selection of materials, compliance with Building Regulations

Wall construction

Cavity, solid and timber frame

Sustainable materials

Locally sourced, managed timber (FSC), recycled materials.

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
information required (AC3.2) Quantity, quality, colour, dimensions, location, installation details
Information required (AC3.8) Labour, operational costs, VAT, material cost

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
Planning Programmes of work, stock systems, critical path analysis, lead times, schedules, Gantt chart.
Planning methods 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 toolbox 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.

Defects

Poor standard of work, poor quality of materials, damaged materials, human error

Problems:

Delivery, materials, quality, human resources.

Unit 306

Carry out first fix roofing and stairs

Level:	6
Credit value:	10
Aim:	<p>The aim of this unit is to provide the learner with the skills to erect traditional cut roof and stairs with turns components in accordance with the current Health and Safety and Building Regulations in new building projects and refurbishment works. The skills developed by the learner will include:</p> <ul style="list-style-type: none">• the uses of woodworking hand tools and powered hand tools and their associated practical uses• to provide the learner with the skills to erect traditional cut roof and stairs with turns components including rafter roofs, construction of verge and eaves finishings, forming dormer windows.

Learning outcome
The learner will: 1. understand how to construct a traditional cut roof
Assessment criteria
The learner can: 1.1 describe different types of roof construction 1.2 state the information required to calculate the length and angle of rafters 1.3 explain the methods of determining rafter lengths 1.4 explain the methods of determining angles of rafter cuts 1.5 describe the components used to construct a traditional cut roof 1.6 describe the procedures for forming openings in roofs 1.7 describe construction detail of a dormer 1.8 describe the method of finishing eaves.

Range
Roof construction Single, double, hipped, gable, lean to, couple, collared, valley, mansard, gambrel/jerkin, gablet

Information

Run, pitch, span, rise

Methods (1.3, 1.4)

Use of scale drawing, roofing square, ready reckoner

Rafter

Common, jack, cripple, hip and valley rafters and purlins

Angles of rafter cuts

Common rafter (seat and plumb cut), hip rafter (seat and plumb cut), backing bevel, edge cut cripple rafter, edge cut jack rafter, purlin edge and side cut

Components

Rafters (hips, common, cripple, jack), valleys, ridge, gable ladder, soffits, verge, wall plate, restraint straps, purlins, lay boards, valley rafters, fascias and bargeboards, collar ties, ceiling joists, diagonal struts

Openings

Roof lights, dormers, chimney stacks

Detail

Insulation, vapour barriers, studs, breather membrane

Method of finishing

Open, closed, flush, projecting and sprocketed.

Learning outcome

The learner will:

2. be able to construct a traditional cut roof

Assessment criteria

The learner can:

- 2.1 carry out risk assessment for constructing traditional cut roof
- 2.2 calculate **rafter** lengths
- 2.3 calculate **angles of rafter cuts**
- 2.4 cut and fix rafters to given specifications
- 2.5 construct **openings** in roofs to given specifications
- 2.6 construct **eave** finishes
- 2.7 select and use **access equipment** as appropriate for the given task in accordance with current **regulations**
- 2.8 follow current environmental and relevant health and safety **regulations** relevant to constructing traditional cut roof.

<p>Range</p> <p>Rafter Common, jack, cripple, hip and valley rafters and purlins</p> <p>Angles of rafter cuts Common rafter (seat and plumb cut), hip rafter (seat and plumb cut), backing bevel, edge cut cripple rafter, edge cut jack rafter, purlin edge and side cut</p> <p>Openings Roof lights, dormers, chimney stacks</p> <p>Eaves Over-hanging</p> <p>Access equipment Proprietary tower scaffold, ladders, platforms/podiums</p> <p>Regulations Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), building regulations, vibration at work regulations, control of noise at work regulations, working at height regulations, current environmental.</p>
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<p>Learning outcome</p> <p>The learner will:</p> <p>3. understand how to fix a flight of stairs with a quarter turn</p>
<p>Assessment criteria</p> <p>The learner can:</p> <p>3.1 describe components used to form a quarter turn staircase and balustrade</p> <p>3.2 explain how to install a quarter turn staircase and balustrade</p> <p>3.3 describe the requirements of building regulations relating to stairs.</p>

<p>Range</p> <p>Components Treads, strings, risers, handrail, wedges, glue blocks, cappings, nosing, newels and balusters/spindles, joists, decking, apron, winders, draw dowel</p> <p>Install Cutting of the strings to ground and first floor level, preparing a landing, assembling winders (tapered steps), fitting top and bottom newels and nosing to trimmer, fixing handrail, balusters/spindles and any shaped bottom step</p> <p>Regulations Approved Document K</p>
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Learning outcome

The learner will:

4. be able to fix a flights of stairs with a quarter turn

Assessment criteria

The learner can:

- 4.1 carry out risk assessment for fixing a **quarter turn flight of stairs**
- 4.2 fix a quarter turn flight of stairs to given specifications
- 4.3 follow current environmental and relevant health and safety **regulations** in relation to fixing a quarter turn straight flight of stairs.

Range**Quarter turn flight of stairs**

Landing, newels, handrails and balustrade, joists, deck, apron, winders (tapered stops)

Regulations

Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), building regulations, vibration at work regulations, control of noise at work regulations, manual handling regulations, working at height regulations, current environmental.

Unit 307

Carry out second fixing double doors and mouldings

Level:	6
Credit value:	7
Aim:	<p>The aim of this unit is to provide the learner with the knowledge to carry out second fix carpentry and joinery work in accordance with the current health and safety and Building Regulations in new building projects and refurbishment works.</p> <p>The knowledge acquired by the learner will enable them to distinguish and identify second fix work, the associated components and materials, and its uses in carpentry and joinery.</p> <p>The skills developed by the learner will include:</p> <ul style="list-style-type: none">• the use of woodworking hand tools and powered hand tools• their associated practical uses in carpentry and joinery second fix work including double doors, ironmongery and mouldings.

Learning outcome
The learner will: 1. understand how to install double doors and ironmongery
Assessment criteria
The learner can: 1.1 describe types of double doors 1.2 describe door ironmongery 1.3 describe the method of fitting double doors.

Range
Types Garage, French doors, rebated, sliding, single and double action
Door ironmongery Butts (brass, steel, cast), tee-hinges, rebated mortice latch/rebate kit, door closers, door selectors, dead locks, Euro locks, three/five levers, security, inset shute bolts, barrel bolts, escutcheons, intumescent strips, weather seals, view holes, door protection plates, threshold cill, screws (brass, steel, slot, pozi, Philips), lever /knob handles, panic bar

and pads, floor and transom springs, door closers, selectors, intumescent strips, smoke seals, finger and kicking plate.

Learning outcome

The learner will:

2. be able to install double doors and ironmongery

Assessment criteria

The learner can:

- 2.1 carry out risk assessment for installing double doors and **ironmongery**
- 2.2 prepare double doors for hanging
- 2.3 hang rebated double doors and fit ironmongery to given specifications
- 2.4 follow current environmental and relevant health and safety and fire **regulations** relating to installing double doors and ironmongery.

Range

Door ironmongery

butts (brass, steel, cast), rebated mortice latch/rebate kit, overhead door closers, door selectors, barrel bolts, lever handles

Regulations

Provision and Use of Work Equipment Regulations (PUWER), personal protective equipment at work (PPE), chemicals or substances hazardous to Health (COSHH), building regulations, vibration at work regulations, control of noise at work regulations current environmental.

Learning outcome

The learner will:

3. understand how to install curved and raking mouldings

Assessment criteria

The learner can:

- 3.1 describe the method of setting out for **curved mouldings**
- 3.2 describe the method of **producing curved mouldings**
- 3.3 describe the method of fitting **curved mouldings**
- 3.4 describe the method of setting out for **raking** mouldings
- 3.5 describe the method of producing **raking** mouldings
- 3.6 describe the method of fitting **raking** mouldings.

Range

Mouldings (AC 3.1-3.3)

Architrave, skirting, dado

Curved

Semi-circular, elliptical, gothic

Producing (AC 3.2)

Laminated, kerfed, cut from a solid

Raking

Square on plan, rake to level.

Learning outcome

The learner will:

4. be able to install curved and raking mouldings

Assessment criteria

The learner can:

- 4.1 carry out risk assessment for installing **curved** and **raking mouldings**
- 4.2 set out for **curved mouldings**
- 4.3 **produce curved mouldings**
- 4.4 fit **curved** mouldings
- 4.5 set out for **raking** mouldings
- 4.6 produce **raking** mouldings
- 4.7 fit **raking** mouldings
- 4.8 follow current environmental and relevant health and safety and fire regulations relating to installing curved and raking mouldings.

Range**Mouldings (AC 4.1-4.3)**

Architrave, skirting, dado

Curved

Semi-circular, elliptical, gothic

Produce (AC 4.3)

Laminated, kerfed, cut from a solid

Raking

Square on plan, rake to level.

Unit 308

Set up and use fixed and transportable machinery

Level:	6
Credit value:	13
Aim:	<p>The aim of this unit is to provide the learner with the skills to:</p> <ul style="list-style-type: none">• set up, perform basic maintenance on, and use fixed and transportable machinery• make checks before start-up to ensure efficiency and safety. <p>The skills developed by the learner include the ability to:</p> <ul style="list-style-type: none">• use circular saws, planers, thicknessers, bandsaws, morticers• use associated safety aids• produce joinery components.

Learning outcome
The learner will: 1. understand how to inspect and maintain fixed and transportable machinery
Assessment criteria
The learner can: 1.1 describe the components of fixed and transportable machinery 1.2 interpret information relating to fixed and transportable machinery 1.3 describe the process of inspecting for faults and maintaining fixed and transportable machinery 1.4 explain the procedures for changing fixed and transportable machinery tooling safely 1.5 explain actions taken upon finding faults to fixed and transportable machinery.

Range
Components Rip saws: guards, extraction points, fences, riving knife, bed, blade, information plate, mouth and packing piece, on/off button, adjusting mechanisms Crosscut saws: guards, fence, length stops, bed, retracting and adjusting mechanisms, information plate, blade, on/off button, extraction points,

Surface planer: infeed, outfeed table, fence, guarding, adjustment mechanism, cutter block, information plate, on/off button, extraction points

Thicknesser: infeed, offeed rollers, anti-kickback fingers, pressure bar, cutter block, extraction points, on/off button, adjustment mechanism, feed speed adjustment

Narrow bandsaws: bed, throat, thrust wheel, guides, guards, tracking and tensioning adjustment mechanism, information plate, on/off button, extraction points,

Morticers: bed, cramp, adjustment, depth stop, collar, chuck, collet, lever handle,

Machinery saws (crosscut, rip), surface planer and thicknesser, narrow bandsaws, morticers

Information

Manufacturers' literature, schedules, regulations

Faults

Damage, DIY repair, missing riving knife, badly fitting or missing guards, poor wiring, lack of maintenance, inadequate or blocked extraction, unsafe work area, inadequate braking, blunt tooling

Maintaining

Grease points, moving parts, tensions, belts, tooling

Tooling

Bandsaw and circular saw blades, knives, mortice chisel and auger bits

Actions

Isolate, record, take the appropriate action, repair if appropriate

Learning outcome

The learner will:

2. be able to inspect and maintain fixed and transportable machinery

Assessment criteria

The learner can:

- 2.1 carry out risk assessment for inspecting and maintaining fixed and transportable **machinery**
- 2.2 inspect machinery and ensure it is in good running order
- 2.3 follow the appropriate **actions** on identification of **faults** in machinery
- 2.4 **maintain** machinery in accordance with manufacturers' instructions and regulations
- 2.5 change **tooling** and adjust **components** on fixed and transportable machinery
- 2.6 follow current environmental and relevant health and safety **regulations** relating to inspecting and maintaining fixed and transportable machinery.

<p>Range</p> <p>Machinery Saws (crosscut, rip), surface planer and thicknesser, narrow bandsaws, morticers</p> <p>Actions Isolate, record, take the appropriate action, repair if appropriate</p> <p>Faults Damage, DIY repair, missing riving knife, badly fitting or missing guards, poor wiring, lack of maintenance, inadequate or blocked extraction, unsafe work area, inadequate braking, blunt or inappropriate tooling</p> <p>Maintain Grease points, moving parts, tensions, belts</p> <p>Tooling Bandsaw and circular saw blades, knives, mortice chisel and auger bits</p> <p>Components Rip saw: guards, riving knife, mouth and packing piece Crosscut saw: guards Surface planer: infeed, outfeed table, guarding, cutter block Thicknesser, cutter block, narrow bandsaws, thrust wheel, guides, guards, tracking and tensioning adjustment mechanism Morticers: collar, chuck, collet</p> <p>Regulations Provision and Use of Work Equipment Regulations (PUWER), approved code of practice (ACoP), personal protective equipment at work (PPE), Control of Substances Hazardous to Health (COSHH), vibration at work regulations, control of noise at work regulations, current environmental.</p>
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<p>Learning outcome</p> <p>The learner will:</p> <p>3. understand how to use fixed and transportable machinery efficiently and safely</p>
<p>Assessment criteria</p> <p>The learner can:</p> <p>3.1 describe fixed and transportable machinery tooling</p> <p>3.2 describe potential hazards when using fixed and transportable machinery</p> <p>3.3 describe methods of using fixed and transportable machinery safely</p> <p>3.4 describe methods of supporting materials when using fixed and transportable machinery.</p>

Range
Tooling Bandsaw and circular saw blades, knives, mortice chisel and auger bits
Hazards Missing, faulty or incorrectly set guarding, blunt or incorrectly fitted tooling, untidy work environments (dust, off cuts)
Machinery
Fixed Saws (crosscut, rip), surface planer and thicknesser, narrow bandsaws, morticers
Transportable Saws (chop, hand held circular and jigsaw), planer, router, drills, sanders
Methods Use of the outfeed table, rollers, additional manual support.

Learning outcome
The learner will: 4. be able to use fixed and transportable machinery efficiently and safely
Assessment criteria
The learner can: 4.1 carry out risk assessment for using fixed and transportable machinery 4.2 cut material using a narrow bandsaw 4.3 cut material using a crosscut saw 4.4 cut material using a rip saw 4.5 cut material using a surface planer 4.6 cut material using a thicknesser 4.7 cut material using a morticer 4.8 follow current environmental and relevant health and safety regulations relating to using fixed and transportable machinery efficiently and safely.

Range
Cut (4.2) Straight, curved, angled
Cut (4.3) Straight
Cut (4.4) Straight, bevel, taper using push sticks, jigs (saddle, wedge)
Cut (4.5) Face side, face edge,

Cut (4.6)

Width, thickness, bevel, taper

Cut (4.7)

Through, stub, haunched mortice

Regulations

Provision and Use of Work Equipment Regulations (PUWER), approved code of practice (ACoP), personal protective equipment at work (PPE), Control of Substances Hazardous to Health (COSHH), vibration at work regulations, control of noise at work regulations, current environmental.



Appendix 1 Sources of general information

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

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

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

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

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

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

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, Textbooks,
Smartscreen

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feedbackandcomplaints@cityandguilds.com

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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.

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City & Guilds

1 Giltspur Street

London EC1A 9DD

www.cityandguilds.com