# City & Guilds Level 2 Diploma in Site Carpentry (6706-23)

March 22 Version 1.4





# Qualification at a glance

Subject area	Construction	
City & Guilds number	6706-23	
Age group approved	16-18, 19+	
Entry requirements	None	
Assessment	Multiple choice/assignment	
Support materials	Centre handbook	
	Assessor guidance	
	Task manual	
Registration and	Consult the Walled Garden/Online	
certification	Catalogue for last dates	

Title and level	GLH	тот	City & Guilds number	Accreditation number
Level 2 Diploma in Site Carpentry	452	520	6706-23	600/8047/4
Level 2 Extended Diploma in Site Carpentry	750	840	6706-50	600/9067/4

Version and date	Change detail	Section
1.1 July 2014	Centre staffing amended	Centre requirements
1.2 December 2015	Updated range for LO 1, 3 and 4 in unit 201/601	5. Units
1.3 September 2017	Added GLH and TQT details.	Qualification at a Glance, Structure
	Deleted QCF	Appendix
1.4 March 2022	TQT & GLH clarification added CG to front cover and amended address on rear , corrected GLH TQT in the TQT table	Front and rear and TQT table





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# 1 Introduction



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

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?	It allows candidates to learn, develop and practise the skills required for employment and/or career progression in Site Carpentry.		
	It covers the following skills:		
	<ul> <li>Carry out first fix flooring and roofing</li> <li>Carry out first fix frames, partitions and stairs</li> <li>Carry out second fixing operations</li> <li>Carry out carpentry maintenance</li> <li>Set up and operate a circular saw</li> </ul>		
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?	<ul> <li>It allows candidates to progress into employment or to the following City &amp; Guilds qualifications:</li> <li>Level 2 NVQ Diploma in Wood Occupations</li> <li>Level 3 Diploma in Site Carpentry</li> </ul>		

#### Structure

To achieve the Level 2 Diploma in Site Carpentry (6706-23), learners must achieve 52 credits from the mandatory units. Total GLH – 452.

Unit accreditation number	City & Guilds unit number	Unit title	Credit value	Guided Learning Hours (GLH)
Mandatory				
A/504/6719	Unit 201/601	Health, safety and welfare in construction	7	70
Y/504/6999	Unit 202/602	Principles of building construction, information and communication	6	55
K/504/6618	Unit 207	Carry out first fix flooring and roofing	14	115
M/504/6619	Unit 208	Carry out first fix frames, partitions and stairs	6	59
M/504/6653	Unit 209	Carry out second fixing operations	9	80
D/504/6650	Unit 210	Carry out carpentry maintenance	5	36
J/504/6657	Unit 211	Set up and operate a circular saw	5	37

To achieve the **Level 2 Extended Diploma in Site Carpentry (6706-50)**, learner must achieve **84** credits from the mandatory units.

Unit accreditation number	City & Guilds unit number	Unit title	Credit value	Guided Learning Hours (GLH)
Mandatory				
A/504/6722	Unit 101/501	Principles of building construction, information and communication	6	52

Y/504/6615	Unit 113	Maintain and use carpentry and joinery hand tools	6	56
H/504/6617	Unit 114	Prepare and use carpentry and joinery portable power tools	6	56
R/504/6614	Unit 115	Produce woodworking joints	14	134
A/504/6719	Unit 201/601	Health, safety and welfare in construction	7	70
Y/504/6999	Unit 202/602	Principles of building construction, information and communication	6	55
K/504/6618	Unit 207	Carry out first fix flooring and roofing	14	115
M/504/6619	Unit 208	Carry out first fix frames, partitions and stairs	6	59
M/504/6653	Unit 209	Carry out second fixing operations	9	80
D/504/6650	Unit 210	Carry out carpentry maintenance	5	36
J/504/6657	Unit 211	Set up and operate a circular saw	5	37

Please Note: the Extended Diploma is for learners starting an Apprenticeship at Level 2.

Information for the Level 1 units can be found in the Level 1 Diploma in Carpentry and Joinery handbook.

## **Total Qualification Time**

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

Title and level	GLH	TQT
Level 2 Diploma in Site Carpentry	452	520
Level 2 Extended Diploma in Site Carpentry	750	840

## 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. 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 saw, which shall be to industrial standards and comply with current regulations.

#### **Centre staffing**

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

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

All staff who quality assure these qualifications must:

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

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

## **Continuing professional development (CPD)**

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

#### Learner entry requirements

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

#### Age restrictions

City & Guilds cannot accept any registrations for candidates 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
Textbook	Can be ordered from Walled Garden, via <b>www.cityandguildsbookshop.com</b> or from your Business Manager
Qualification Approval Form	www.cityandguilds.com
SmartScreen	www.smartscreen.co.uk

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## 4 Assessment

Unit	Title	Assessment method	Where to obtain assessment materials
201/ 601	Health, safety and welfare in construction	City & Guilds e-volve multiple choice test or on demand externally marked paper. The test covers all of the knowledge in the unit.	Examinations provided on e- volve, or question papers ordered via Walled Garden.
202/ 602	Principles of building construction, information and communication	City & Guilds e-volve multiple choice test or on demand externally marked paper. The test covers all of the knowledge in the unit.	Examinations provided on e- volve, or question papers ordered via Walled Garden.
207	Carry out first fix flooring and roofing	Multiple choice question paper, covering knowledge outcomes. Practical assignment, covering performance outcomes.	www.cityandguild s.com
		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.	
208	Carry out first fix frames, partitions and stairs	Multiple choice question paper, covering knowledge outcomes.	www.cityandguild s.com
		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.	

Unit	Title	Assessment method	Where to obtain assessment materials
209	Carry out second fixing operations	Multiple choice question paper, covering knowledge outcomes.	www.cityandguild s.com
		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.	
210	Carry out carpentry maintenance	Multiple choice question paper, covering knowledge outcomes.	www.cityandguild s.com
		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.	
211	Set up and operate a circular saw	Multiple choice question paper, covering knowledge outcomes.	www.cityandguild s.com
		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.	

### **Test specifications**

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

Test 1: Unit 201/601 Health, safety and welfare in constructionDuration:60 minutes

Unit	Outcome	Number of questions	%
201/601	1 Know the health and safety regulations, roles and responsibilities	7	17.5
	2 Know accident and emergency reporting procedures and documentation	5	12.5
	3 Know how to identify hazards in the workplace	7	17.5
	4 Know about health and welfare in the workplace	3	7.5
	5 Know how to handle materials and equipment safely	2	5
	6 Know about access equipment and working at heights	3	7.5
	7 Know how to work with electrical equipment in the workplace	4	10
	8 Know how to use personal protective equipment (PPE)	5	12.5
	9 Know the cause of fire and fire emergency procedures	4	10
	Total	40	100

Test 2:	Unit 202/602 Principles of building construction,
	information and communication
Duration:	80 minutes

Unit	Outcome	Number of questions	%
202/602	1 Understand how to select types of building information	5	12.5
	2 Know about environmental considerations in relation to construction	5	12.5
	3 Understand the construction of foundations	7	17.5
	4 Understand construction of internal and external walls	9	22.5

5 Know about construction of floors	4	10
6 Know about construction of roofs	3	7.5
7 Understand how to communicate in the workplace	7	17.5
Total	40	100

# **Test 3:** 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
		25	100

**Test 4:** Unit 208 Carry out first fix frames, partitions and stairs**Duration:**40 minutes

Unit	Outcome	Number of questions	%
208	1 Know how to fix frames and linings	10	40
	3 Know how to construct stud partitions	9	36
	5 Know how to fix a straight flight of stairs	6	24
	Total	25	100

# Test 5: Unit 209 Carry out second fixing operationsDuration: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 6: Unit 210 Carry out carpentry maintenanceDuration:30 minutes

Unit	Outcome	Number of questions	%
210	1 Know how to repair mouldings, doors and windows	9	45
	3 Know how to replace gutters and downpipes	5	25
	5 Know how to replace sash cords	6	30
	Total	20	100

## Test 5: Unit 211 Set up and operate a circular saw

**Duration:** 45 minutes

Unit	Outcome	Number of questions	%
211	1 Know the principles of using circular saws safely	11	36
	2 Know how to change circular saw blades	8	27
	4 Know timber, timber products and processes	6	20
	5 Know how to cut timber and manufactured boards	5	17
	Total	30	100



#### Availability of units

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

#### Structure of units

These units each have the following:

- City & Guilds reference number
- unit accreditation number (UAN)
- title
- level
- credit value
- guided learning hours
- unit aim
- learning outcomes which are comprised of a number of assessment criteria.

#### **Range explained**

Range gives further scope on what areas within 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
Baluster/Spindle	The vertical member, plain or decorative, that acts as the infill between the handrail and baserail.
Blue stain	A blue fungal discolouration in the sapwood, which does not reduce its strength.
Bolection moulding	A moulding projecting beyond the surface of the work which it decorates, such as on panel doors.
Bowing	A board that is lying flat, with one or both ends slightly lifted off the ground forming a curve or bow.
Built in-situ'	Erected in the position it will occupy permanently.
Cold roof	A roof with its insulation near the ceiling and a ventilated space above it.
Collapse	Irregular or excessive shrinkage during the drying of timber.
Combination planes	A woodworking plane that has interchangeable cutters of various shapes.

Combination square	A square that measures both 90 degree and 45 degree angles.
Common rafters	Similar to joists but inclined rising from the eaves to the ridge.
Contact adhesive	An adhesive which sticks immediately the two coated surfaces are brought together.
Cornice	A decorative moulding to hide the joint between the wall and the ceiling.
Crown/top saw guard	A guard on a table saw that covers the top of the saw blade.
Cupping	A deviation in the face of a piece of timber where the edges curve in towards or away from one another.
Dado	A border or panelling over the lower half of a wall, from the top of the skirting to the dado rail.
Datum	A datum is a fixed point for reference levels from, they may be permanent Ordnance Bench Marks (OBMs) or Temporary Bench Marks (TBMs)
Deadlock	Similar to the mortice dead latch but only having a deadbolt and no latch.
Diminishing shoulder	Used for a door stile which is narrowed (Diminished) from the lock rail upwards to give more space for glazing.
Dry rot	Fungal timber decay occurring in poorly ventilated conditions in buildings, resulting in cracking and powdering of the wood.
Eaves	This is the lower edge of the roof surface that overhangs the walls. Eaves can be open, closed or flush.
Escutcheon	Door furniture that surrounds a keyhole or lock cylinder
Euro locks	Euro cylinder locks are widely used in modern doors including uPVC, double glazed doors and patio doors.
Firrings	Tapered lengths of timber fixed below roof boarding on the top the joists to provide drainage falls
Formaldehyde glue	The glue can be used in veneer and lamination work. Industrial formaldehyde can also be used on oily woods, to which other adhesives may not bond. While this glue may have a long working time, it can easily and quickly be cured when heat is used.
Frieze rail	Frieze rail intermediate
Gable end	Triangular upper part of wall at the end of a ridge roof

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Gable ladders	The roof extends over the gable wall to give a suitable overhang. To achieve this is a simple frame called a ladder frame is constructed.
Gap filling cartridge adhesive	A high strength adhesive that eliminates the need for nails and screws in many DIY and repair jobs. Extremely versatile and adheres to most building materials.
Gent saw	Very similar to a dovetail saw, a gent saw is a small hand saw with a turned handle used for cutting joinery.
Girder truss	A trussed rafter, usually of timbers thicker than standard size that supports other roof members.
Gullet	The gap between the teeth of a saw
Heading joint	A joint between two pieces of timber which are joined in a straight line, end to end.
Hipped roof	A roof with four roof planes coming together at a peak and four separate hip legs.
Intumescent strips	Fitted to fire doors/frames that swell during a fire to seal the door to frame gap.
Isolation switch	Isolates the power to the machine
Jambs	The upright side members of a door or window frame
Joist hangers	These are metal hangers by which ceiling joists are fixed to the wall plate.
Kerf	The gap left when material is removed by a saw.
King-post truss	A traditional timber roof truss with a vertical post from the apex to the centre of the bottom tie beam
Lean to roof	A roof with one slope only that is built against a higher wall
Marking gauge	A tool for scribing a line parallel to an edge, used in marking out.
Moisture content	The amount of moisture in a material expressed as a percentage
Mullion	A vertical dividing member of a window frame that separates the lights from each other.
Muntin	A vertical member in a panelled door framed into the rails, separating the panels.
Outfeed table	This is an extension table, fitted to protect the person taking cut material off from the rear of the saw.
Pitched roof	A common roof design, usually one with two slopes meeting at the central ridge.
Pith	The heart centre of the timber, consisting chiefly of soft tissue.
Plinth block	A block at the foot of a door architrave against which the skirting board also fits

Pressure treatment	Wood impregnated with preserving and/or fire retarding chemicals under pressure.
PU	Polyurethane glue (High strength, multi- purpose, quick grab building adhesive) is becoming increasingly popular. They bond to textile fibres, metals, plastics, glass, sand, ceramics, and rubber, in addition to wood.
Push stick	A push stick is used for safety reasons when guiding wood being cut through a circular saw.
PVA	Polyvinyl Acetate wood glue.
Resin pockets	Resin pockets are formed in the growing tree as a result of damage. The pocket can contain liquid resin, which flows out readily when the pocket is sawn through.
Rim locks	A rim lock is a locking device that attaches to the surface of a door
Riving knife	Installed at the rear of the saw blade, this safety device reduces the risk of 'kick back' and accidental contact with the back of the saw blade.
Sash cords	A braided rope nailed to the sides of the sashes. They pass over a top pulley and are attached to a hidden weight in a traditional sash window
Sash window	A window with two sashes that open by sliding vertically passed each other.
Scribed joint	A joint between two mouldings; one moulding is cut to the profile of the second.
Secret nailing	Nailing which is not seen on the surface
Shakes	Shakes are cracks in the timber which appear due to excessive heat, frost or twisting due to wind or poor nutrient content of the soil during the growth of a tree. Shakes can also be a result of seasoning. Depending upon the shape and the positions shakes can be classified as star shake, cup shake, ring shakes and heart shakes.
Sliding bevel	A tool which can be set to different angles to aid marking out.
Sloping grain	If conversion is not parallel to the axis of tree, sloping grains occur which reduces timber's bending strength.
Soffit	This is the underside of the eaves that is fixed to the back of the fascia and the wall. It forms an enclosed element all around the building.
Springing	Is distortion along the length, while the board or plank remains flat.
Stair string	An inclined board each side of the stair to carry the treads and risers

Storm proof window	A window with additional protection against driving rain from double rebates, weather strips, throating or grooving of the frame and sash.
Strutting herringbone	Cross bracing used between floor joists to increase stiffness
Transom	A timber bar separating the sashes of a window or separating a door from a fanlight over it.
Try square	A square with a steel tongue in a wooden handle.
Trussed rafter	A prefabricated truss made of light timbers joined with nail plates and used in most new domestic roofs
Upsets	This type of defect is due to excessive compression in the tree when it was young. Upset is an injury by crushing. This is also known as rupture.
Valley	This is the line formed at the internal intersection of two sloping surfaces. It runs from the ridge to the eaves.
Wall plate	Timber along the top of the wall at eaves level that carries the rafters or joists
Wall strap	Metal straps that help tie the wall plate to the walls.
Warm Deck	A flat roof with external insulation on the top of the supporting deck.
Warm roof	A pitched roof with heat insulation above the roof space.
Wet rot	Decay of timber by fungi that attack wood having high moisture content
Winding or twist	Spiral or corkscrew distortion in a longitudinal direction of the board.

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

UAN:	A/504/6719
Level:	2
Credit value:	7
GLH:	70
Endorsement by a sector or regulatory body:	This unit is endorsed by Construction Skills, the Sector Skills Council for the construction industry.
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 le	arner can:	
1.1	identify <b>health and safety legislation</b> relevant to and used in the construction environment	
1.2	state <b>employer and employee responsibilitie</b> s under the Health and Safety at Work Act (HASWA)	
1.3	state <b>roles and responsibilities</b> of the Health and Safety Executive (HSE)	
1.4	identify <b>organisations</b> providing relevant health and safety information	
1.5	state the importance of holding on-site safety inductions and toolbox talks.	

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

UAN:	Y/504/6999
Level:	2
Credit value:	6
GLH:	55
Endorsement by a sector or regulatory body:	This unit is endorsed by Construction Skills, the Sector Skills Council for the construction industry.
Aim:	<ul> <li>The aim of this unit is to provide the learner with the knowledge of building methods and construction technology in relation to:</li> <li>understanding a range of building materials used within the construction industry and their suitability to the construction of modern buildings.</li> <li>source relevant information and apply it to relevant tasks</li> <li>calculating the resources from required drawings and specifications.</li> </ul>
Learning outcome	
The learner will: 10. understand how to sel	ect types of building information.

#### Assessment criteria

The learner can:

- 10.1 interpret information sources used in construction
- 10.2 interpret scale, symbols and hatchings on a working drawing
- 10.3 explain the purpose of **benchmarks** used in construction.

#### Range

#### Information sources

Drawings, schedules, specifications, programme of work, organisational chart, method statements, risk assessment, manufacturers' technical information, bill of quantities, order requisitions, delivery notes, variation orders, permits to work, signs and notices.

#### Symbols

WC, sink, bath, door, window

#### Hatchings

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

#### **Benchmarks**

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

#### Learning outcome

The learner will:

11. know about environmental considerations in relation to construction.

#### Assessment criteria

The learner can:

- 11.1 describe thermally insulated materials
- 11.2 describe methods of making buildings water efficient
- 11.3 describe methods of making buildings energy efficient
- 11.4 state environmental-friendly building materials
- 11.5 state **procedures** for waste management.

#### Range

#### Materials

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

#### Methods (2.2)

Efficient sanitary ware, water harvesting.

#### Methods (2.3)

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

#### **Building materials**

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

#### Procedures:

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

#### Learning outcome

The learner will:

12. understand the construction of foundations.

#### Assessment criteria

The learner can:

12.1 describe factors to be considered when selecting foundations

- 12.2 describe materials and mix-ratios used in concrete foundations
- 12.3 explain how to set out foundations
- 12.4 explain factors to consider when excavating foundations
- 12.5 describe methods of transferring datums
- 12.6 calculate the volume of concrete used in pile foundation.

#### Range

#### Factors (3.1)

Ground conditions (subsoil), strength, types of building.

#### Foundations

Strip, raft, pile, pad.

#### Materials:

Course aggregate, fine aggregate, cement, water, steel reinforcement, sulphate-resisting cement, ordinary portland cement, frost proofing, accelerators, retardants.

#### Set out:

3:4:5 method, diagonals, profiles, builder's square.

#### Factors (3.4)

Underground services, proximity to neighbouring buildings, tree roots, ground conditions.

#### Methods:

Optical/laser level, straight edge and spirit level

#### Learning outcome

The learner will:

13. understand construction of internal and external walls.

#### Assessment criteria

The learner can:

- 13.1 describe wall components
- 13.2 explain the importance of a Damp Proof Course (DPC)
- 13.3 calculate the area of a gable
- 13.4 identify **additives** used in mortar
- 13.5 identify different types of **bonding**
- 13.6 describe the differences between load-bearing and non-loadbearing internal walls
- 13.7 calculate the volume of paint required to cover a wall area.

#### Range

#### Wall components

Brick, block, insulation, Damp Proof Course (DPC), lintels, wall ties, airbrick and liner, cavity closures, stud partition, light density blocks, plasterboard, plaster.

#### Additives:

Retardant, accelerant, frost inhibitor, cement dyes, plasticiser.

#### Bonding:

Stretcher, English, Flemish.

#### Learning outcome

The learner will:

14. know about construction of floors.

#### Assessment criteria

The learner can:

- 14.1 describe floor components
- 14.2 calculate the linear quantity of floor boarding to cover an irregular shaped area
- 14.3 calculate additional quantities of wastage using percentage.

#### Range

#### Floor components:

Hardcore, blinding sand, Damp Proof Membrane (DPM), insulation, oversite concrete, block and beam, pre-cast floor panels, screed (dry, self-levelling) sleeper walls, wall plates, DPC, joists, joist hangers, floor covering.

#### Learning outcome

The learner will:

15. know about construction of roofs.

#### Assessment criteria

The learner can:

- 15.1 describe types of roofs
- 15.2 describe roof components.

#### Range

#### Types

Gable-ended, flat, hipped, lean-to.

#### **Roof components**

Purlins, rafters, truss rafters, ridge, batten/lathe, fascia, soffit, barges, valleys, wall plate, flashings, felt, slate/tile, insulation, joists, wall plate straps.

#### Learning outcome

The learner will:

16. understand how to communicate in the workplace.

#### Assessment criteria

The learner can:

- 16.1 describe job roles within building teams
- 16.2 explain key personnel involved in day to day communication
- 16.3 state information needed when requesting materials
- 16.4 identify methods of communication used to relay information to colleagues and others
- 16.5 describe advantages and disadvantages of **methods of communication**
- 16.6 state **occasions** when clear communication is vital in the workplace
- 16.7 explain **benefits** of positive communication with colleagues and others.

#### Range

#### Job roles

Professional, technician, trade, general operative.

#### **Key personnel**

Site manager, supervisors, fellow operatives.

#### Information

Dimensions, quantities, type, when and where required, contact name and details.

#### Methods of communication (7.4)

Letters, emails, telephone, memos, verbal, posters, signs, meetings, radio, text messages

#### Methods of communication (7.5)

Written, verbal

#### Occasions

Changes to risk assessments, work restrictions, changes to method statement, permits to work, changes to legislation.

#### Benefits

Improved motivation, avoid conflict, complying with equality and diversity, meeting deadlines.

# Unit 207 Carry out first fix flooring and roofing

110.01.	K/F04/6618	
UAN:	K/504/6618	
Level:	2	
Credit value:	14	
GLH:	115	
Endorsement by a sector or regulatory body:	This unit is endorsed by ConstructionSkills.	
Aim:	<ul> <li>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.</li> <li>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.</li> <li>The skills developed by the learner will include:</li> <li>the use of woodworking hand tools and powered hand tools</li> <li>their associated practical uses in flooring and roofing work to including erecting roofing structures, verge and eaves and installing floor joists.</li> </ul>	
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 reading 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

#### Types

Flat, lean to, gable ended, pitched, hipped and valley, cold and warm deck

#### **Construction types**

Trussed rafters (fan, fink, king post and attic, girder, mono, diminishing), common rafters.

#### **Component parts**

Wall plate, rafters, struts, ceiling joists, binders, firrings, noggins, decking, gable ladders, wall straps, truss clips, bracing, joist hangers, ties, chords, purlin.

#### **Roofing structures**

Gable ended pitched roof, flat roof.

#### Tools

Hammers, screwdrivers, chop saw, handsaw, chisels, drill bits, drills, nail guns, spirit level, plumb bob, try squares.

#### **Fixings**

Screws, nails and proprietary brackets/hangers.

#### Access equipment

Proprietary tower, trestles, independent and putlog, proprietary tower scaffold, ladders, platforms/podiums.

#### 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

#### Tools

Hammers, screwdrivers, chop saw, handsaw, chisels, drill bits, drills, nail guns, spirit level, plumb bob, try and roofing square.

#### Fixings

Screws, nails and proprietary brackets/hangers.

#### **Access equipment**

Proprietary tower scaffold, ladders, platforms/podiums.

#### **Roofing structures**

Gable ended trussed roof.

#### 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

#### Learning outcome

The learner will:

3. know how to fix verge and eave components

#### Assessment criteria

The learner can:

- 3.1 identify component parts of verges and eaves
- 3.2 describe methods of finishing gable ends
- 3.3 describe methods of finishing eaves
- 3.4 identify tools used to fix gable and eaves finishes.

#### Range

#### **Component parts**

Fascia, soffit and barge boards, ventilation, tilt fillet, bracketing.

#### **Methods of finishing (AC3.2)** Flush, overhanging verge.

Flush, overhanging verge.

#### Methods of finishing (AC3.3)

Open, closed, flush and projecting.

#### Tools

Hammers, screwdrivers, chop saw, handsaw, chisels, drill bits, drills, nail guns, spirit level, plumb bob, try and roofing square, string line.

#### Learning outcome

The learner will:

4. be able to fix verge and eave components

#### Assessment criteria

The learner can:

- 4.1 carry out risk assessment for fixing verge and eave components
- 4.2 select tools to fix verge and eave components
- 4.3 select and use **access equipment** as appropriate for the given task in accordance with current regulations
- 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.

**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
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 208 Carry out first fix frames, partitions and stairs

UAN:	M/504/6619	
Level:	2	
Credit value:	6	
GLH:	59	
Endorsement by a sector or regulatory body:	This unit is endorsed by ConstructionSkills	
Aim:	<ul> <li>The aim of this unit is to provide the learner with the knowledge and skills to: carry out first fix carpentry and joinery work on frames, partitions and stairs in accordance with the current health and safety and Building Regulations in new building projects and refurbishment works.</li> <li>The knowledge acquired by the learner will enable them to distinguish and identify first fix work and its uses in carpentry and joinery.</li> <li>The skills developed by the learner will include: <ul> <li>the use of woodworking hand tools and powered hand tools</li> <li>their associated practical uses in joinery first fix work including frames and linings, stud partitions and straight flights of stairs and handrails</li> </ul> </li> </ul>	

Learning outcome	
The learner will:	
1. know how to fix frames and linings	
Assessment criteria	
The learner can:	
1.1 identify types of door frames and door linings	
1.2 identify types of <b>window frames</b>	
1.3 identify materials used to manufacture door and window frames	
1.4 describe methods of fixing frames and linings	
1.5 describe <b>timber defects</b>	
1.6 state <b>tools</b> used to install door frames and linings.	

# Door frames and door linings

Internal, external, fire, double

# Window frames

Traditional, storm proof, sliding slash and pivot.

#### Materials

Plastic, hardwood, softwood, aluminium.

#### Methods

Screwing, wedging, using brackets/straps, frame anchors, using polyurethane fixing foam, DPC

# **Timber defects**

Splits in timber, waney edge, fungal attack, damage caused it transit, knots and shakes, resin pockets

#### Tools

Saws, hammers, chisels, screwdrivers, spirit levels, drills.

# Learning outcome

The learner will:

2. be able to fix frames and linings

# Assessment criteria

The learner can:

- 2.1 carry out risk assessment for fixing frames and linings
- 2.2 select tools for fixing frames and linings
- 2.3 select the **fixing materials**
- 2.4 fix frames and linings to given specifications
- 2.5 work to drawings and schedules
- 2.6 follow current environmental and relevant health and safety **regulations** relating to fixing frames and linings.

#### Range

# **Frames and linings**

Door lining, window frame

#### Tools

Saws, hammers, chisels, screwdrivers, spirit levels, drills.

#### **Fixing materials**

Screws, wedges, brackets, frame anchors, polyurethane fixing foam, DPC

# Fix

Out of wind, out of twist, square within 2 mm, no bows 2 mm and plumb within 2 mm.

# **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.

# Learning outcome

The learner will:

3. know how to construct stud partitions

### Assessment criteria

The learner can:

- 3.1 identify types of stud partition walling
- 3.2 identify component parts used in stud partition construction
- 3.3 identify sizes of timber to be used to construct a partition wall
- 3.4 describe properties of materials used to cover a partition wall
- 3.5 describe methods of constructing openings within a partition wall
- 3.6 describe methods of constructing internal, external corners and junctions within a partition wall
- 3.7 describe ways of accommodating services within a partition wall
- 3.8 identify types of fixings used to construct partition walls
- 3.9 describe ways of erecting stud partitions.

#### Range

# Types

Metal, timber

#### **Component parts**

Metal or timber head plates, sole plates, studs, noggins, door head, puncheon

#### Sizes

Standard lengths and sectional sizes

# Properties

Fire and sound resistance

#### Materials

Plasterboard and plywood, insulation

# Openings

Doors, windows, hatches

#### Services

Gas, water and waste pipes, electric cables and telecommunications

#### Fixings

Nails, plugs, screws

#### Ways

Prefabricated, built in situ'.

#### Learning outcome

The learner will:

4. be able to construct stud partitions

#### Assessment criteria

The learner can:

- 4.1 carry out risk assessment for constructing stud partitions
- 4.2 select tools, materials and fixings for erecting stud partitions
- 4.3 construct a timber stud partition to given **specifications**
- 4.4 form a door opening in a partition wall to given specifications
- 4.5 construct internal and external corners within a partition wall to given specifications
- 4.6 construct the partition framework to suit the type of covering within given specifications
- 4.7 follow current environmental and relevant health and safety **regulations** relating to constructing stud partitions.

#### Range

# Tools

Spirit level, hammer, hand saws, tape measure, chop saw, try square, sliding bevel, drill and chisels.

# **Materials and fixings**

Timber, plugs, screws, nails.

# 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.

#### Learning outcome

The learner will:

5. know how to fix a straight flight of stairs

# Assessment criteria

The learner can:

- 5.1 identify **components** used to form a staircase and balustrade
- 5.2 describe how to install a staircase and balustrade
- 5.3 identify tools and equipment needed to fix a straight flight of stairs.

# Range

# Components

Treads, strings, risers, handrail, wedges, glue blocks, cappings, nosing, newels and balusters/spindles, base rail

# Install

Cutting of the strings to ground and first floor level, fitting top newel and nosing to trimmer, fixing bottom newel, handrail and any shaped bottom step

# **Tools and equipment**

Spirit level, hammer, hand saws, tape measure, chop saw, try square, sliding bevel, drill and chisels.

# Learning outcome

The learner will:

6. be able to fix a straight flight of stairs

# Assessment criteria

The learner can:

- 6.1 carry out risk assessment for fixing straight flights of stairs
- 6.2 select tools and equipment needed to fix a straight flight of stairs
- 6.3 fix stairs, newels, handrails and balustrade to given **specifications**
- 6.4 follow current environmental and relevant health and safety
  - regulations relating to fixing a straight flight of stairs.

# Range

# **Tools and equipment**

Spirit level, hammer, hand saws, tape measure, chop saw, try square, sliding bevel, drill and chisels.

# 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, Manual Handling Regulations, Working at Height Regulations, current environmental.

The learner can:

doors

1.2 identify door ironmongery

# Carry out second fixing operations

UAN:	M/504/6653
Level:	2
Credit value:	9
GLH:	80
Endorsement by a sector or regulatory body:	This unit is endorsed by ConstructionSkills.
Aim:	<ul> <li>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.</li> <li>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.</li> <li>The skills developed by the learner will include: <ul> <li>the use of woodworking hand tools and powered hand tools</li> <li>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.</li> </ul> </li> </ul>
Learning outcome	
The learner will:	
1. know how to install doors and ironmongery	
Assessment criteria	

1.1 describe the characteristics of internal, external and fire rated

1.3 explain the importance of working drawings and schedules1.4 identify **tools** used to install doors and fit ironmongery.

# 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 (mortice sash lock), 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, Manual Handling 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

# Methods of transferring datums

Using laser, spirit level, straight edge

#### Types

Picture rail, cornice, skirting board, dado rail, architrave, plinth block, corbels, hardwood, softwood, medium density fibreboard (MDF)

#### Mouldings

Square, pencil round, torus, bull nose, splayed, ogee

#### Tools

Saws, hammers, mallets, chisels, screwdrivers, marking gauges, square, combination square, sliding bevel, profile combs, spirit level, laser level, nail gun, holding devices, cordless drills, drill bits and chop saw, coping saw, block plane, nail punch, scribes; materials – nails, screws, adhesives

# Methods of jointing

Mitring (45 degrees, bi-section), heading joints, using hand and power tools

#### Methods of fixing

Using nails, screws, adhesives.

# 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.

# Mouldings

Skirting, architrave, dado and picture rail

# Specifications

Working drawings, given instructions, schedules, methods of jointing (mitring (45 degrees, bi-section), heading joints, using hand and power tools)

#### 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, Manual Handling 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 chop 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

#### **Specifications**

Working drawings, given instructions

# Fix

Plumb, level, secure

# Service encasements

Pipe boxing and bath panels

#### 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, Manual Handling Regulations, current environmental.

# 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.

#### Process

Position, level, fix (to hollow and solid wall), scribe to wall

# Methods

Use of jointing strip, mitre joints, biscuit jointing and connecting bolts, butt and scribe, using sealants

#### Worktops

Post-formed and solid timber

#### Fitments

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.

# 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 (AC8.6)

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, Manual Handling Regulations, current environmental.

UAN:	D/504/6650	
Level:	2	
Credit value:	5	
GLH:	36	
Endorsement by a sector or regulatory body:	This unit is endorsed by ConstructionSkills.	
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to carry out maintenance work, in accordance with the current health and safety and Building Regulations on refurbishment works. The knowledge acquired by the learner will enable them to distinguish and identify maintenance work, the associated components and materials, and its uses in carpentry. The skills developed by the learner will include:	
	<ul> <li>the use of woodworking hand tools and powered hand tools</li> <li>their associated practical uses in maintenance work including repairs to mouldings, doors and windows,</li> </ul>	

# Learning outcome

The learner will:

Unit 210

1. know how to repair mouldings, doors and windows

# Assessment criteria

The learner can:

- 1.1 describe types of timber decay
- 1.2 describe **methods** of eradicating timber decay
- 1.3 describe methods of disposing of affected timber
- 1.4 describe methods of applying preservatives to timber
- 1.5 describe how to **make good** repaired surfaces.

Range	
Types	

Rot (wet, dry), insect infestations (woodworm, powder post beetle, common furniture and death watch beetle).

# Methods (AC 1.2)

Cutting out, specialist timber treatment.

# Methods (AC 1.3)

Specialist disposal, environmentally friendly disposal.

# Methods (AC 1.4)

Pressure treatment and injection method, dip, spray, brush.

# Preservatives

Water-based, solvent-based, oil-based.

# Make good

Fill, smooth, seal, prime, paint, splice/piece.

# Learning outcome

The learner will:

2. be able to repair mouldings, doors and window sills

# Assessment criteria

The learner can:

- 2.1 protect surrounding work areas from damage
- 2.2 replace damaged timber in doors and window sills
- 2.3 splice new sections into **mouldings**, doors and window sills using **hand tools**
- 2.4 prepare surfaces for applying finishes
- 2.5 follow current environmental and relevant health and safety **regulations** relating to repairing mouldings, doors and window sills.

# Range

#### Mouldings

Skirtings, architraves, picture and dado rails (shaped in-situ or manufactured)

# Hand tools

Saws, hammer, tape measure, spirit level, chisels, mallet, hammer, square, marking gauge, planes, cordless drill, hammer drill and router

# Prepare

Use of punch nails, counter bore and wood plugs, fillers, smooth and without gaps

#### 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, Manual Handling Regulations, current environmental.

### Learning outcome

The learner will:

3. know how to replace gutters and downpipes

# Assessment criteria

The learner can:

- 3.1 identify damage to gutters and downpipes
- 3.2 identify materials used to make gutters and downpipes
- 3.3 identify guttering and downpipe profiles
- 3.4 describe **components** used to make up downpipes and guttering.

#### Range

### Damage

Breakages, split, erosion, leakage, perished seals, wood decay

# Materials

Plastic, cast iron, wood

# Profiles

Square, round, half round and ogee

# Components

Pipe, shoe, joint, hopper, elbow, offset, gutter, clips, brackets, running outlet, stop end, 135° bend, swan neck, union.

# Learning outcome

The learner will:

4. be able to replace gutters and downpipes

#### Assessment criteria

The learner can:

- 4.1 carry out risk assessment for replacing gutters and downpipes
- 4.2 joint and fix new guttering to existing guttering using appropriate **tools**
- 4.3 joint and fix new downpipes to existing guttering using appropriate **tools**
- 4.4 follow current environmental and relevant health and safety **regulations** relating to replacing gutters and downpipes
- 4.5 use access equipment in accordance with current legislation.

#### Range

# Tools

Hack saw, screwdriver, cordless drill, plumb bob, drill bits, file

#### 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, Manual Handling Regulations, current environmental.

#### Learning outcome

The learner will:

5. know how to replace sash cords

# Assessment criteria

The learner can:

- 5.1 identify **components** of box sash windows
- 5.2 identify potential **damage** to sash cords
- 5.3 describe the **process** of replacing sash cords.

#### Range

#### Components

Pocket, parting bead, staff bead, pulley wheels, sill, pulley stiles, weights, sliding sash, sash cord, wag tail, meeting rails, glazing bars, spiral spring balancers.

#### Damage

Perishing, fraying, broken

#### Process

Remove components, replace sash cords

#### Learning outcome

The learner will:

6. be able to replace sash cords

#### Assessment criteria

The learner can:

- 6.1 carry out risk assessment for replacing sash cords
- 6.2 remove box sash window components to expose the weights
- 6.3 attach new sash cords to the required length
- 6.4 reassemble box sash window components
- 6.5 follow current environmental and relevant health and safety **regulations** relating to replacing sash cords
- 6.6 use access equipment in accordance with current legislation.

#### Range

# Components

Pocket, parting bead, staff bead, weights, sliding sash, sash cord

# 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, Manual Handling Regulations, current environmental.

# Unit 211 Set up and operate a circular saw

UAN:	J/504/6657
Level:	2
Credit value:	5
GLH:	37
Endorsement by a sector or regulatory body:	This unit is endorsed by ConstructionSkills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to use a circular saw to cut wood, wood products and non-ferrous metals. The knowledge acquired by the learner will enable them to understand how the relevant law and good practice relating to circular saw usage is important. The skills developed by the learner include the ability to maintain, use and change tooling on fixed and transportable circular saws.

Learning outcome		
The	learner will:	
1. know the principles of using circular saws safely		
Assessment criteria		
The	learner can:	
1.1	state current legislation applicable to circular saws	
1.2	identify components of a circular saw	
1.3	state potential faults in relation to circular saws	
1.4	describe the procedure to follow on identification of faults	
1.5	describe types of dust extraction for circular saws	
1.6	state the importance of dust extraction on circular saws	
1.7	identify sawing safety aids used in conjunction with circular saws	
1.8	state <b>safety features</b> of a circular saw.	

# Range

# **Current legislation**

Provision and Use of Work Equipment Regulations (PUWER), Approved Code of Practice (ACoP), Health and Safety at Work Act, Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), Electricity at Work Act, Abrasive Wheels Regulations, Vibration at Work Regulations, Control of Noise at Work Regulations, current environmental regulations

# **Circular saws**

Fixed and transportable

# Components

Guards, extraction points, fences, riving knife, bed, blade, information plate, mouth piece, on/off button, adjusting mechanisms

# Faults

Missing or damaged guards, faulty or incorrectly fitted tooling and damage to equipment, riving knife (thickness, distance, height)

# Types

Fixed and transportable

# Sawing safety aids

Push sticks, jigs (saddle, wedge, taper)

# Safety features

Crown/top saw guard, riving knife, braking systems, isolation switch, outfeed table.

#### Learning outcome

The learner will:

2. know how to change circular saw blades

#### Assessment criteria

The learner can:

- 2.1 state the sequence of changing circular saw blades
- 2.2 state the importance of the minimum saw blade diameter in relation to peripheral speed
- 2.3 state the importance of fitting correct circular saw blades
- 2.4 identify features of a circular saw blade
- 2.5 describe effects of timber and sheet material on circular saw blades
- 2.6 describe the use of lubricants on circular saw blades.

# Range

# Sequence

Consult the risk assessment, isolate, remove guarding, riving knife, saw blade, clean down, replace saw blade, riving knife and guarding, undergo pre-start checks

# Saw blades

Rip saw, crosscut and combination

#### Features

Root, top, face, back, point, heel, positive, negative and neutral hook, gullet, tip, kerf

#### Effects

Abrasion, resin build up, overheating

# Material

Softwoods and hardwoods, manufactured boards (Plywood, chipboard, MDF)

#### Learning outcome

The learner will:

3. be able to change circular saw blades

# Assessment criteria

The learner can:

- 3.1 carry out risk assessment for changing circular saw blades
- 3.2 follow the **sequence** for changing circular saw blades using manufacturers' **tools** in accordance with their instructions and current legislation
- 3.3 select appropriate types of **saw blades** for the operations being carried out
- 3.4 inspect saw blades for damage and potential hazards
- 3.5 follow current environmental and relevant health and safety **legislation** relating to changing circular saw blades.

#### Range

#### Sequence

Consult the risk assessment, isolate, remove guarding, riving knife, saw blade, clean down, replace saw blade, riving knife and guarding, undergo pre-start checks

#### Tools

Spanners, allen keys and mallet

#### Saw blade

Rip saw, crosscut and combination

#### Damage

Missing or damaged teeth, warping

# **Current legislation**

Provision and Use of Work Equipment Regulations (PUWER), Approved Code of Practice (ACoP), Health and Safety at Work Act, Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), Electricity at Work Act, Abrasive Wheels Regulations,

# Learning outcome

The learner will:

4. know timber, timber products and processes

Assessment criteria

The learner can:

- 4.1 identify different **types** of timber
- 4.2 identify **methods** of timber conversion
- 4.3 describe defects found in timber
- 4.4 state methods of drying timber
- 4.5 identify types of manufactured boards.

# Range

# Types

Softwoods (European red wood, white wood, Douglas fir) and hardwoods (oak, mahogany, beech, ash)

# Methods (AC 4.2)

Quarter sawn, through and through, tangential, boxed heart

# Defects

Natural (sloping grain, knots, shakes, upset, waney edge, resin pockets, foreign bodies, decay, pith, blue stain, insect infestation), seasoning (cupping, winding, twist, case hardening, bowing, springing, collapse)

# Methods (AC 4.4)

Air and kiln drying

# Drying

Moisture content

#### Manufactured boards

Medium density fibre board (MDF), plywood, orientated strand board (OSB), chipboard, hardboard.

#### Learning outcome

The learner will:

5. know how to cut timber and manufactured boards

#### Assessment criteria

The learner can:

5.1 describe the type of information recorded on a cutting list

- 5.2 state the requirements for setting guards, saw blades and fences
- 5.3 state the **requirements** for adjusting the circular saw
- 5.4 state **methods** of supporting materials during cutting.

#### Information

Description of the item, quantity, material, length, width, thickness (sawn and planed), remarks, contract details

#### Requirements

According to current legislation and approved code of practice

#### Methods

Use of the outfeed table, rollers, additional manual support.

#### Learning outcome

The learner will:

# 6. be able to cut timber and manufactured boards

Assessment criteria

The learner can:

- 6.1 carry out risk assessment for cutting timber and manufactured boards
- 6.2 check circular saws for faults
- 6.3 select material for cutting
- 6.4 set guards according to current legislation
- 6.5 set fences and adjust saw blades according to given specifications
- 6.6 identify **defects** and cut materials appropriately
- 6.7 cut materials according to given **specifications**
- 6.8 use appropriate sawing safety aids to specifications
- 6.9 follow current environmental and relevant health and safety **legislation** relating to cutting timber and manufactured board.

# Range

#### Faults

Missing or damaged guards, faulty or incorrectly fitted tooling and damage to equipment, riving knife (thickness, distance) material: softwood, manufactured board

# Defects

Natural (sloping grain, knots, shakes, upset, waney edge, resin pockets, foreign bodies, decay, pith, blue stain, insect infestation), seasoning (cupping, winding, twist, case hardening, bowing, springing, collapse)

# Specification

Working drawings, cutting lists and given instructions

# Sawing safety aids

Push sticks, jigs (saddle, wedge, taper)

#### Legislation

Provision and Use of Work Equipment Regulations (PUWER), Approved Code of Practice (ACoP), Health and Safety at Work Act, Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), Electricity at Work Act, Abrasive Wheels Regulations, Vibration at Work Regulations, Control of Noise at Work Regulations, current environmental regulations, Manual Handling Regulations



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

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

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

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

- Regulatory Arrangements for the Qualifications and Credit Framework (2008)
- SQA Awarding Body Criteria (2007)

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

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

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

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

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Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	E: centresupport@cityandguilds.com
Single subject qualifications	T: +44 (0)844 543 0000
Exam entries, Results, Certification,	F: +44 (0)20 7294 2413
Missing or late exam materials,	F: +44 (0)20 7294 2404 (BB forms)
Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	E: singlesubjects@cityandguilds.com
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