

Level 2 Diploma in Bench Joinery (6706-26)

September 2017 Version 1.3



Qualification at a glance

Subject area	Construction
City & Guilds number	6706-26
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	GLH	TQT	City & Guilds number	Accreditation number
Level 2 Diploma In Bench Joinery	435	500	6706-26	600/8048/6
Level 2 Extended Diploma in Bench Joinery	733	820	6706-51	600/9068/6

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 Deleted QCF	Qualification at a Glance, Structure Appendix



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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 Bench Joiner 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 Bench Joinery.</p> <p>It covers the following skills:</p> <ul style="list-style-type: none"> • Set up and operate a circular saw • Produce setting out details for bench joinery products • Mark out from setting out details for bench joinery products • Manufacture bench joinery products
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 qualifications:</p> <ul style="list-style-type: none"> • Level 2 NVQ Diploma in Wood Occupations • Level 3 Diploma in Bench Joinery

Structure

To achieve the **Level 2 Diploma in Bench Joinery (6706-26)**, learners must achieve **50** credits from the mandatory units below. Total GLH - 435

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
J/504/6657	Unit 211	Set up and operate a circular saw	5	37
T/504/6668	Unit 212	Produce setting out details for bench joinery products	9	74
M/504/6670	Unit 213	Mark out from setting out details for bench joinery products	9	71
T/504/6671	Unit 214	Manufacture bench joinery products	14	128

To achieve the **Level 2 Extended Diploma in Bench Joinery (6706-51)**, learners must achieve **82** credits from the mandatory units below.

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
J/504/6657	Unit 211	Set up and operate a circular saw	5	37
T/504/6668	Unit 212	Produce setting out details for bench joinery products	9	74
M/504/6670	Unit 213	Mark out from setting out details for bench joinery products	9	71
T/504/6671	Unit 214	Manufacture bench joinery products	14	128

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 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 Bench Joinery	435	500
Level 2 Extended Diploma in Bench Joinery	733	820



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 are required to have a morticer, bandsaw and a fixed or transportable circular saw, together with suitable tooling, allowing candidates to practice the requirements of the units and carry out the Practical Assignments. All machinery 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 these qualifications. However, centres must ensure that learners have the potential and opportunity to gain the qualifications successfully.

Age restrictions

City & Guilds cannot accept any registrations for learners under 16 as these qualifications are not approved for under 16s.



2 Delivering the qualification

Initial assessment and induction

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

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

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

Support materials

The following resources are available for this qualification:

Description	How to access
Assessor guidance	www.cityandguilds.com
Task manual	www.cityandguilds.com
Textbook	Can be ordered from Walled Garden, via www.cityandguildsbookshop.com or from your Business Manager
Qualification Approval Form	www.cityandguilds.com
SmartScreen	www.smartscreen.co.uk



3 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.
211	Set up and operate a circular saw	Multiple choice question paper, covering knowledge outcomes. Practical assignment , covering performance outcomes. Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	www.cityandguilds.com

Unit	Title	Assessment method	Where to obtain assessment materials
212	Produce setting out details for bench joinery products	<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
213	Mark out from setting out details for bench joinery products	<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
214	Manufacture bench joinery products	<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 201/601 Health, safety and welfare in construction

Duration: 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 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

Test 4: Unit 212 Produce setting out details for bench joinery products
Duration: 40 minutes

Unit	Outcome	Number of questions	%
212	1 Understand how to interpret information for setting out bench joinery products	4	16
	3 Know how to select resources for setting out bench joinery products	8	32
	4 Know how to set out for bench joinery products	13	52
	Total	25	100

Test 5: Unit 213 Mark out from setting out details for bench joinery products
Duration: 25 minutes

Unit	Outcome	Number of questions	%
213	1 Understand the effect of marking out errors on work	2	14
	2 Know how to mark out for bench joinery products	12	86
	Total	14	100

Test 6: Unit 214 Manufacture bench joinery products

Duration: 25 minutes

Unit	Outcome	Number of questions	%
214	1 Understand tools and materials used for manufacturing bench joinery products	13	87
	2 Understand how to prepare for manufacturing bench joinery products	2	13
	Total	15	100



4 Units

Availability of units

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

Structure of units

These units each have the following:

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

Range explained

Range gives further scope on what areas within the 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.
Bowling	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

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 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 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:	<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. • source relevant information and apply it to relevant tasks • calculating the resources from required drawings and specifications.

Learning outcome
The learner will: 10. understand how to select 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-load-bearing 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.

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:	<p>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.</p> <p>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.</p> <p>The skills developed by the learner include the ability to maintain, use and change tooling on fixed and transportable circular saws.</p>

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 safety features 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.

<p>Saw blades Rip saw, crosscut and combination.</p> <p>Features Root, top, face, back, point, heel, positive, negative and neutral hook, gullet, tip, kerf.</p> <p>Effects Abrasion, resin build up, overheating.</p> <p>Material Softwoods and hardwoods, manufactured boards (Plywood, chipboard, MDF).</p>
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<p>Learning outcome</p> <p>The learner will:</p> <p>3. be able to change circular saw blades</p>
<p>Assessment criteria</p> <p>The learner can:</p> <p>3.1 carry out risk assessment for changing circular saw blades</p> <p>3.2 follow the sequence for changing circular saw blades using manufacturers' tools in accordance with their instructions and current legislation</p> <p>3.3 select appropriate types of saw blades for the operations being carried out</p> <p>3.4 inspect saw blades for damage and potential hazards</p> <p>3.5 follow current environmental and relevant health and safety legislation relating to changing circular saw blades.</p>

<p>Range</p> <p>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.</p> <p>Tools Spanners, allen keys and mallet.</p> <p>Saw blade Rip saw, crosscut and combination.</p> <p>Damage Missing or damaged teeth, warping.</p> <p>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,</p>

Abrasive Wheels Regulations, Vibration at Work Regulations, Control of Noise at Work Regulations, current environmental 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.

Range
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.

UAN:	T/504/6668
Level:	2
Credit value:	9
GLH:	74
Endorsement by a sector or regulatory body:	This unit is endorsed by ConstructionSkills.
Aim:	<p>The aim of this unit is to provide the learner with the knowledge and skills to produce setting out details prior to the manufacture of joinery products.</p> <p>The knowledge developed by the learner include the ability to understand how to interpret and check information given accurately using scales and identify appropriate tools and materials.</p> <p>The skills developed by the learner include the ability to:</p> <ul style="list-style-type: none"> • work with given drawings and other sources of information • set out doors, door and window frames, staircases, linings, units.

Learning outcome
The learner will:
1. understand how to interpret information for setting out bench joinery products
Assessment criteria
The learner can:
1.1 describe types of information used for setting out bench joinery products
1.2 explain the importance of checking accuracy of information
1.3 explain the importance of reporting discrepancies
1.4 explain what effect setting out errors can have on an overall programme of work.

Range
Information

Working drawings, job sheets, specifications, schedules, technical and manufacturers' information, Building Regulations, site measurements.

Bench joinery products

Doors, door and window frames, staircases, linings and units.

Accuracy

Drawings match each other, match requirements, measurements given on the drawings match the existing work and the customer's requirements.

Discrepancies

Measurement errors, incorrect drawing details, design issues.

Effect

Wastage of materials, slowing of programme, increased labour.

Learning outcome

The learner will:

2. be able to interpret information for setting out bench joinery products

Assessment criteria

The learner can:

- 2.1 select **information** required to produce setting out details for **bench joinery products**
- 2.2 check information is **accurate**
- 2.3 report **discrepancies** in information as appropriate.

Range

Information

Working drawings, job sheets, specifications, schedules, technical and manufacturers' information, Building Regulations.

Bench joinery products

Doors, door and window frames, staircases, linings, units.

Accurate

Drawings match each other, match requirements, measurements given on the drawings, match the existing work and the customer's requirements.

Discrepancies

Measurement errors, incorrect drawing details, design issues.

Learning outcome

The learner will:

3. know how to select resources for setting out bench joinery products

Assessment criteria

The learner can:

- 3.1 describe the **properties** of bench joinery **materials**
- 3.2 describe various **defects** found in bench joinery materials
- 3.3 state the available market **sizes** of bench joinery materials
- 3.4 identify setting out **tools**.

Range

Properties

Durability, stability, weight, workability, species, ability to take preservatives and finishes, quality of finish, interior (INT), moisture resistant (MR) and weather and boil proof (WBP) classifications.

Materials

Timber: softwoods (European red wood, white wood, Douglas fir) and hardwoods (oak, mahogany, beech, ash).

Manufactured boards: medium density fibre board (MDF), plywood, orientated strand board (OSB), chipboard, hardboard.

Defects

Natural: (sloping grain, knots, shakes, upset, grain, waney edge, resin pockets, foreign bodies, decay, pith, blue stain, insect infestation).

Seasoning: (cupping, winding, twist, case hardening, bowing, springing, collapse).

Sizes

Standard board, sawn, finished sizes.

Tools

Level, squares (set, tee, roofing and combination), rule, scale rule, measuring tape, pencil, dividers, computer aided design (CAD), protractor, compass, trammel heads and beam.

Learning outcome

The learner will:

- 4. know how to set out for bench joinery products

Assessment criteria

The learner can:

- 4.1 identify component parts of **bench joinery products**
- 4.2 identify profiles of bench joinery **component parts**
- 4.3 identify **joints** used in the construction of bench joinery products
- 4.4 identify **ironmongery** for bench joinery products.

Range
<p>Bench joinery products Doors, door and window frames, staircases, linings, units.</p> <p>Component parts Frames and linings: head, cill, jambs, transom, mullion, beads. Doors and sashes: stiles, rails (bottom, middle, top, frieze intermediate), glazing bars, meeting rails, muntin, panels, beads, bed and bolection mouldings. Stairs: strings, tread, risers, string capping, spindle/balusters, newel, hand rail, nosing, wedges, glue blocks, bull nose. Units: ends, sides, shelves, top, standards, plinth, rails (top, front, fascia), division, drawers, back panels, doors, coving, pelmet, worktops.</p> <p>Joints Mortice and tenon (haunched, franked, long and short diminishing shoulder, double), halving (cross, tee), widening (biscuit, dowel, tongue and groove, loose tongue, butt), housing (through, tongued, stopped), dovetail (through and lapped), stud and cam.</p> <p>Ironmongery Hinges (friction, butt storm proof, Parliament), handles, screws, locks (sash and door), latches, drawer runners, sash pulleys.</p>

Learning outcome
The learner will: 5. be able to set out for bench joinery products
Assessment criteria
The learner can: 5.1 carry out risk assessment for setting out for bench joinery products 5.2 use tools to set out bench joinery products 5.3 produce cutting lists for bench joinery products 5.4 produce requisition sheets for ironmongery for bench joinery products 5.5 follow current environmental and relevant health and safety regulations relating to setting out for bench joinery products.

Range
<p>Bench joinery products Doors, door and window frames, staircases, linings, units.</p> <p>Tools Bevel, squares (set, tee, roofing and combination), rule, scale rule, measuring tape, pencil, dividers, computer aided design (CAD), protractor, compass, trammel heads and beam.</p>

<p>Cutting lists Description of the item, quantity, material, length, width, thickness (sawn and planed), remarks, contract details.</p> <p>Ironmongery Hinges (friction, butt storm proof) , handles, screws, locks, latches, drawer runners.</p> <p>Regulations Health and Safety at Work Act, Provision and Use of Work Equipment Regulations (PUWER), Approved Code of Practice (ACoP), Personal Protective Equipment at Work (PPE), current environmental regulations.</p>
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Unit 213 Mark out from setting out details for bench joinery products

UAN:	M/504/6670
Level:	2
Credit value:	9
GLH:	71
Endorsement by a sector or regulatory body:	This unit is endorsed by ConstructionSkills
Aim:	<p>The aim of this unit is to provide the learner with the knowledge and skills to:</p> <ul style="list-style-type: none"> • check given information • select materials • accurately mark out routine products conforming to current regulations. <p>The knowledge developed by the learner includes the ability to interpret different types of information accurately.</p> <p>The skills developed by the learner include the ability to:</p> <ul style="list-style-type: none"> • select materials • produce and check accurate marking out on time.

Learning outcome
The learner will:

1. understand the effect of marking out errors on work
Assessment criteria
The learner can: 1.1 explain what effect marking out errors can have on an overall programme of work.

Range
Effect Wastage of materials, slowing of programme, increased labour costs.

Learning outcome
The learner will: 2. know how to mark out for bench joinery products
Assessment criteria
The learner can: 2.1 identify tools required for marking out for bench joinery products 2.2 explain use of rods and marking out information 2.3 state the purpose of using face side and face edge marks 2.4 state the importance of using a pattern when marking out in pairs and multiples 2.5 state the importance of using a box square when using pre-profiled timber 2.6 state how joints and sections are marked out on timber components.

Range
Tools Mortice gauge, marking gauge, try square, combination square, sliding bevel, box square.
Joints Dovetail, mortice and tenon, halving, housing.
Sections Rebates, mouldings (ovolo, chamfer, lambs tongue), grooves.

Learning outcome
The learner will: 3. be able to mark out for bench joinery products
Assessment criteria
The learner can: 3.1 carry out risk assessment for marking out bench joinery products

- 3.2 select and use **tools** required for marking out for **bench joinery products**
- 3.3 select face side and face edge
- 3.4 mark out bench joinery products
- 3.5 follow current environmental and relevant health and safety **regulations** relating to marking out for bench joinery products.

Range

Tools

Mortice gauge, marking gauge, try square, combination square, sliding bevel, box square.

Bench joinery products

Doors, door and window frames, staircases, linings and units.

Regulations

Health and Safety at Work Act, Provision and Use of Work Equipment Regulations (PUWER), Approved Code of Practice (ACoP), Personal Protective Equipment at Work (PPE), current environmental regulations.

UAN:	T/504/6671
Level:	2
Credit value:	14
GLH:	128
Endorsement by a sector or regulatory body:	This unit is endorsed by ConstructionSkills
Aim:	<p>The aim of this unit is to provide the learner with the knowledge and skills to manufacture joinery products.</p> <p>The knowledge developed by the learner includes the ability to understand how to read drawings, rods and other information.</p> <p>The skills developed by the learner include the ability to:</p> <ul style="list-style-type: none"> • select correct materials for a given job • manufacture joinery products.

Learning outcome
The learner will: 1. understand tools and materials used for manufacturing bench joinery products
Assessment criteria
The learner can: 1.1 explain characteristics of timber 1.2 explain characteristics of timber-based manufactured boards 1.3 explain characteristics of materials used for manufacturing bench joinery products 1.4 identify tools and their purpose for manufacturing bench joinery products 1.5 identify machinery and its use for manufacturing bench joinery products .

Range
Characteristics

Durability, weight, workability, ability to take preservatives and finishes, quality of finish, interior (INT), moisture resistant (MR) and water boil proof (WBP) classifications.

Timber

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

Timber-based manufactured boards

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

Materials

Ironmongery, adhesives: PVA, PU, formaldehyde glue, gap filling cartridge adhesive, contact adhesive, finishes, fixings: screws (brass, steel, slot, pozi, Philips), nails and pins, star dowels.

Tools

Chisels: bevel edge, mortice, gauges, pairing, lock.

Planes: Block, jack, smoothing, rebate and combination planes, spokeshaves.

Handsaw: coping, tenon, panel, rip, dovetail, crosscut, gentsaw.

Other hand tools: Hammers (pin and claw), mallet, punches, measuring tapes and rules, try square, combination square, sliding bevel, marking gauge, mortice gauge, sash cramp, G-cramp, F-cramp, bench hook, vice, proprietary cramps.

Power tools: sanders, drills and drivers, planer, router, jigsaw, chop saw and nail guns and associated tooling.

Machinery

Morticer, band saw, spindle moulder.

Use

Morticing, cutting and moulding in line with current legislation and Approved Code of Practice (ACoP).

Bench joinery products

Doors, door and window frames, linings, staircases, units.

Learning outcome

The learner will:

2. understand how to prepare for manufacturing bench joinery products

Assessment criteria

The learner can:

- 2.1 explain the importance of **efficient methods** of work.

Range
<p>Efficient methods Programmes of work, specifications, instructions and job sheets, drawings, cutting lists, cooperation with other operatives, timber materials and components stored in an efficient way.</p>

Learning outcome
The learner will: 3. be able to manufacture bench joinery products
Assessment criteria
<p>The learner can:</p> <p>3.1 carry out risk assessment for manufacturing bench joinery products</p> <p>3.2 select and maintain tools for bench joinery products</p> <p>3.3 use machinery to manufacture bench joinery products</p> <p>3.4 check timber, timber-based manufactured boards and materials for defects</p> <p>3.5 manufacture joints for bench joinery products</p> <p>3.6 use efficient methods of work when manufacturing bench joinery products</p> <p>3.7 follow current environmental and relevant health and safety regulations relating to manufacturing bench joinery products.</p>

Range
<p>Tools Chisels: bevel edge, mortice, gauges, pairing, lock. Planes: Block, jack, smoothing, rebate and combination planes. Handsaw: coping, tenon, panel, rip, dovetail, crosscut, gentsaw. Other hand tools: Hammers (pin and claw), mallet, punches, measuring tapes and rules, try square, combination square, sliding bevel, marking gauge, mortice gauge, sash cramp, G-cramp, F-cramp, bench hook, vice, proprietary cramps. Power tools: sanders, drills and drivers, planer, router, jigsaw, chop saw and nail guns and associated tooling. Machinery: morticer, band saw.</p> <p>Bench joinery products Door, door and window frame, lining, staircase, unit.</p> <p>Materials Ironmongery, adhesives: PVA, PU, formaldehyde glue, gap filling cartridge adhesive, contact adhesive, finishes, fixings: screws (brass, steel, slot, pozi, Philips), nails and pins, star dowels.</p> <p>Defects</p>

Natural (sloping grain, knots, shakes, upset, waney edge, resin pockets, pith, blue stain), seasoning (cupping, winding, twist, bowing, springing).

Joints

Mortice and tenon (haunched, franked, long and short shoulder), halving (cross, tee), widening (biscuit, dowel, tongue and groove, loose tongue, butt), housing (through, stopped), through dovetail, stud and cam.

Efficient methods

Programmes of work, specifications, instructions and job sheets, drawings, cutting lists, cooperation with other operatives, timber materials and components stored in an efficient way.

Regulations

Health and Safety at Work Act, 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, Environmental Regulations, Manual Handling Regulations.

Learning outcome

The learner will:

4. be able to assemble and finish bench joinery products

Assessment criteria

The learner can:

- 4.1 select assembly **materials** for bench joinery products
- 4.2 select **assembly tools** for **bench joinery products**
- 4.3 dry fit and clean up internal faces and edges of components
- 4.4 assemble components for bench joinery products
- 4.5 **finish** assembled bench joinery products
- 4.6 **maintain** tools and work area during bench joinery work
- 4.7 follow current environmental and relevant health and safety **regulations** relating to assembling and finishing bench joinery products.

Range

Materials

Ironmongery, adhesives: PVA, PU, formaldehyde glue, gap filling cartridge adhesive, contact adhesive, finishes, fixings: screws (brass, steel, slot, pozi, Philips), nails and pins, star dowels

Assembly tools

Planes: Block, jack, smoothing

Handsaw: panel, tenon

Other hand tools: Hammers (pin and claw), mallet, punches, measuring tapes and rules, squaring rod, try square, sash cramp, G-cramp, F-cramp, proprietary cramps
Power tools: sanders, drills and drivers

Bench joinery products

Door, door and window frame, lining, staircase, unit

Finish

Square, flush, overall size to specification, joints tight, out of twist, surface free from indentations, contaminants and marks

Maintain

Keeping tools sharp, clean and in good repair

Regulations

Health and Safety at Work act, 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, Environmental Regulations, Manual Handling Regulations.



Appendix 1 Sources of general information

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

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

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

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

- 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.

Useful contacts

UK learners General qualification information	T: +44 (0)844 543 0033 E: learnersupport@cityandguilds.com
International learners General qualification information	T: +44 (0)844 543 0033 F: +44 (0)20 7294 2413 E: intcg@cityandguilds.com
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 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	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 F: +44 (0)20 7294 2404 (BB forms) E: singlesubjects@cityandguilds.com
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City & Guilds

1 Giltspur Street

London EC1A 9DD

T +44 (0)844 543 0000

F +44 (0)20 7294 2413

www.cityandguilds.com