

# Diploma in Carpentry and Joinery at SCQF Level 4 6806-13

February 2016 Version 2



## Qualification at a glance

<b>Subject area</b>	Construction
<b>City &amp; Guilds number</b>	6806-13
<b>Age group approved</b>	16-18, 19+
<b>Entry requirements</b>	None
<b>Assessment</b>	Multiple choice/assignment
<b>Support materials</b>	Centre handbook Assessor guidance Task manual
<b>Registration and certification</b>	Consult the Walled Garden/Online Catalogue for last dates

<b>Title and level</b>	<b>City &amp; Guilds number</b>
Diploma in Carpentry and Joinery at SCQF Level 4	6806-13

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



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# 1 Introduction

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

<b>Area</b>	<b>Description</b>
Who is the qualification for?	It is for candidates who work or want to work as a carpenter or joiner 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 carpentry or joinery.  It covers the following skills: Producing basic woodworking joints, and safely using various hand and power tools.
Is the qualification part of a framework or initiative?	No
What opportunities for progression are there?	It allows candidates to progress into employment or to the following City & Guilds qualifications: <ul style="list-style-type: none"><li>• Diploma in Site Carpentry at SCQF Level 5</li><li>• Diploma in Bench Joinery at SCQF Level 5</li></ul>

## Structure

To achieve the **Diploma in Carpentry and Joinery at SCQF Level 5**, learners must achieve **39** credits from the five mandatory units below.

<b>City &amp; Guilds unit number</b>	<b>Unit title</b>	<b>Credit value</b>
Unit 101	Principles of building construction, information and communication	6
Unit 113	Maintain and use carpentry and joinery hand tools	6
Unit 114	Prepare and use carpentry and joinery portable power tools	6
Unit 115	Produce woodworking joints	14
Unit 201	Health, safety and welfare in construction	7



## 2 Centre requirements

### Approval

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

### Resource requirements

#### Physical resources and site agreements

Centres will have well equipped workshops with a comprehensive range of hand and portable power tools that meet current industry standards. All powered equipment should be well maintained and PAT certified. A Bench vice will be available to each candidate. Facilities for grinding and sharpening hand tools will be available. All equipment, powered and hand tools contained within the unit must be available to the candidate, meet 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 SCQF qualifications. However, we encourage trainers and assessors to qualify to the current TAQA standard.

#### Continuing professional development (CPD)

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

## **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 learners under 16 as this qualification is not approved for under 16s.



### 3 Delivering the qualification

#### Initial assessment and induction

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

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

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

#### Support materials

The following resources are available for this qualification:

Description	How to access
Assessor guide	<a href="http://www.cityandguilds.com">www.cityandguilds.com</a>
Task manual	<a href="http://www.cityandguilds.com">www.cityandguilds.com</a>
Textbook	Can be ordered from Walled Garden, via <a href="http://www.cityandguilds.com">www.cityandguilds.com</a> or from your Business Manager
Qualification approval form	<a href="http://www.cityandguilds.com/construction">www.cityandguilds.com/construction</a>
SmartScreen	<a href="http://www.smartscreen.co.uk">www.smartscreen.co.uk</a>





## 4 Assessment

Unit	Title	Assessment method	Where to obtain assessment materials
101	Principles of building construction , information and communication	City & Guilds e-volve multiple choice test. The test covers all of the knowledge in the unit.	Examinations provided on e-volve.
113	Maintain and use carpentry and joinery hand tools	Multiple choice question paper, covering knowledge outcomes.  Practical assignment, covering performance outcomes.  Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	<b>www.cityandguilds.com</b>
114	Prepare and use carpentry and joinery portable power tools	Multiple choice question paper, covering knowledge outcomes.  Practical assignment , covering performance outcomes.  Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	<b>www.cityandguilds.com</b>

<b>Unit</b>	<b>Title</b>	<b>Assessment method</b>	<b>Where to obtain assessment materials</b>
115	Produce woodworking joints	<p>Multiple choice question paper, covering knowledge outcomes.</p> <p>Practical assignment , covering performance outcomes.</p> <p>Both assessments are set by City &amp; Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City &amp; Guilds to make sure they are properly carried out.</p>	<a href="http://www.cityandguilds.com">www.cityandguilds.com</a>
201	Health, safety and welfare in construction	<p>City &amp; Guilds e-volve multiple choice test.</p> <p>The test covers all of the knowledge in the unit.</p>	Examinations provided on e-volve.

## Test specifications

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

**Test 1:** Unit 101 Principles of building construction, information and communication

**Duration:** 70 minutes

Unit	Outcome	Number of questions	%
101	1 Know how to identify information used in the workplace	7	20
	2 Know about environmental considerations in relation to construction	2	5.5
	3 Know about construction of foundations	4	11.5
	4 Know about construction of internal and external walls	8	23
	5 Know about construction of floors	4	11.5
	6 Know about construction of roofs	6	17
	7 Know how to communicate in the workplace	4	11.5
	<b>Total</b>	<b>35</b>	<b>100</b>

**Test 2:** Unit 113 Maintain and use carpentry and joinery hand tools

**Duration:** 30 minutes

Unit	Outcome	Number of questions	%
113	1 Know how to maintain and use carpentry and joinery hand tools	5	25
	3 Know how to use carpentry and joinery handsaws	4	20
	5 Know how to use carpentry and joinery hand-held planes	6	30
	7 Know how to use carpentry and joinery chisels	5	25
	<b>Total</b>	<b>20</b>	<b>100</b>

**Test 3:** Unit 114 Prepare and use carpentry and joinery portable power tools

**Duration:** 45 minutes

<b>Unit</b>	<b>Outcome</b>	<b>Number of questions</b>	<b>%</b>
114	1 Know how to maintain and store carpentry and joinery portable power tools	11	37
	3 Know how to use carpentry and joinery portable power drills	9	30
	5 Know how to use carpentry and joinery portable power saws	3	10
	7 Know how to use carpentry and joinery portable power planers and routers	4	13
	9 Know how to use carpentry and joinery portable power sanders	3	10
	<b>Total</b>	<b>30</b>	<b>100</b>

**Test 4:** Unit 115 Produce woodworking joints

**Duration:** 30 minutes

<b>Unit</b>	<b>Outcome</b>	<b>Number of questions</b>	<b>%</b>
115	1 Know how to select and store materials used to produce woodworking joints	8	40
	2 Know how to select and use hand tools to produce woodworking joints	5	25
	3 Know the resources required to mark out woodworking joints	3	15
	6 Know how to form a frame using woodworking joints	4	20
	<b>Total</b>	<b>20</b>	<b>100</b>

**Test 5:** Unit 201 Health, safety and welfare in construction

**Duration:** 60 minutes

<b>Unit</b>	<b>Outcome</b>	<b>Number of questions</b>	<b>%</b>
201	1 Know the health and safety regulations, roles and responsibilities	7	17.5
	2 Know accident and emergency reporting procedures and documentation	5	12.5
	3 Know how to identify hazards in the workplace	7	17.5
	4 Know about health and welfare in the workplace	3	7.5

5 Know how to handle materials and equipment safely	2	5
6 Know about access equipment and working at heights	3	7.5
7 Know how to work with electrical equipment in the workplace	4	10
8 Know how to use personal protective equipment (PPE)	5	12.5
9 Know the cause of fire and fire emergency procedures	4	10
<b>Total</b>	<b>40</b>	<b>100</b>



## 5 Units

### Structure of units

These units each have the following:

- City & Guilds reference number
- title
- level
- credit value
- unit aim
- learning outcomes which are comprised of a number of assessment criteria

### Range explained

Range gives further scope on what areas within assessment criteria must be covered. The range in a unit **must** be taught to learners and parts of the range will be assessed.

### Glossary of terms

Term	Definition
Abrasive	Material used for smoothing wood, includes glass-paper
Air dried	Natural method of seasoning timber. Timber is stacked 'in-stick or pile' in open-sided covered sheds. This protects the wood from rain while allowing free air circulation.
Auger bit	Rotating cutting tool used in brace to drill holes
Belt sander	A portable sanding tool having a power-driven abrasive-coated continuous belt.
Bevel edge	To cut the edge of aboard at an angle.
Block planes	A small plane that can easily be used with one hand
Boxed heart conversion	Boxing the heart refers to eliminating the heartwood from the boards that would otherwise produce shakes or may even be rotten. This can be achieved by either tangential or radial cutting.
Bridle joint	Bridle joints are very similar to the mortise and tenon joint. The difference is in the cut of both the mortise and tenon they extend to the full width of the piece being used for the tenon and the full depth of the section being used for the mortise.
Butt joint	Simple joint in which two pieces of wood are placed against each other but held with nails, screws, dowels, glue or other fasteners.

Case hardening	Case hardening caused by timber being kiln dried too rapidly, leaving the outside dry but the centre still wet which will cause it to bend when cut.
Cavity fixings	Many different types available, used to enable secure fixings when a cavity is present such as stud partition walling
Coping Saw	A saw with a thin, narrow blade used for cutting round sharp curves
Countersink	To sink the heads, screws or bolts flush with or slightly below the surface of the timber using a countersinking drill bit.
Crosscut Saw	A saw used to cut across the board perpendicular to the grain
Diamond stones	Used to hone the edges of steel tools, A diamond stone is a plate sometimes with a plastic or resin base. The plate is coated with diamond grit, an abrasive that will grind metal.
Dovetail joint	Attractive joint used for drawers and in fine furniture with interlocking teeth.
Dovetail Saw	Small saw fine-toothed saw used for cutting dovetails
Ferrule	A metal band round a wooden handle to prevent splitting
Flat bit	Used for rough boring in wood. They tend to cause splintering when they emerge from the workpiece. They are flat, with a centering point and two cutters.
G-cramp	A steel G-shaped screw cramp used for holding two materials together
Grinding angle	Angle ground on blade of plane or chisel from which the cutting edge is sharpened.
Halving joint	This is where half of each of the two boards being joined is removed, so that the two boards join together flush with one another.
High speed steel (HSS)	Often abbreviated as HSS. Material used to make planer Knives, Cutters, Saw Blades and Router Bits. Not as Hard nor as brittle as Carbide
Honing	To provide the final, durable polished finish to a an edge tool after grinding
Housing/trenching joint	Joint consisting of a groove usually cut across the grain into which the end of another member is housed or fitted to form the joint. Such as stair treads in to the string.
Jack Plane	A large plane for removing large quantities of material, as in straightening surfaces or reducing the thickness.
Kiln dried	Timber dried in controlled conditions in a large oven called a kiln
Lengthening joint	Used to join two pieces of timber together to gain a longer length. There are several methods of joining timber, dependent on the

	strength and finish required. Names/types can include bolted joint, lapped joint, scarf joint, spliced joint, heading joint.
Local exhaust ventilation (LEV)	An engineering control system to reduce exposures to airborne contaminants such as dust in the workplace. Commonly called dust extraction.
Manufactured boards	Manufactured Boards are man-made boards and can include Plywood, MDF (Medium density fibre Board), Block Board, Chipboard, Hard Board, OSB (oriented strand board).
Mitre joint	Similar to a butt joint, but both pieces have been bevelled (usually at a 45 degree angle).
Mortise and tenon joint	A very strong joint which is formed by a tongue-like piece or tenon. The tenon then fits into a mortise or slot cut into a second piece
Mortise chisel	Mortise chisels are used for 'chopping out' joints (chiselling away the waste wood). They are particularly useful for cutting mortise joints as they are strong enough to withstand heavy blows with a mallet.
Oil stones	A stone used for sharpening cutting tools, treated with oil to prevent steel particles from clogging the pores of the stone
Orbital sander	An electric sander that moves the abrasive in an elliptical pattern
Ovolo	A convex moulding having a cross section in the form of a quarter of a circle or of an ellipse
Pad Saw	A thin saw blade in a tool pad used for cutting holes
Panel Saw	A fine-toothed saw the teeth are at about 2.5mm spacing
Philips	Screw with cross slot in simple star shape driven by matching screwdriver.
Plough plane	Used for making grooves in timber
portable appliance test (PAT)	Is a process by which electrical appliances are routinely checked for safety.
Pozi-driv	Screw with cross slot shaped in double star which must be driven by matching screwdriver.
Proprietary	Manufactured and sold only by the owner of the patent, formula, brand name, or trademark associated with the product.
Quarter sawn	Term used in timber conversion. Cutting at a 90-degree angle from the growth rings on a log to produce a vertical and uniform pattern grain. The grain on the face of a quarter-sawn board will be parallel lines that are straight, tight and run the length of the board.



Rebate	Rectangular groove or recess in the edge of a board, which holds panel or glass in a door or picture-frame.
Rebate Plane	A plane for cutting rebates in timber
Rip Saw	A saw for cutting length-ways with the grain
Sash cramp	Cramp used for work, up to about 2m long. It is an adjustable steel bar with a bolt at one end and a fixed jaw at the other.
SDS	Extremely powerful hammer drill the 'Special Direct System' is used when extra power is required, for heavy duty work. For example drilling masonry.
Smoothing Planes	All-purpose plane used mainly for cleaning up and finishing work
Specification	Instruction detailing types of materials and methods of work to be used
Spokeshaves	Used to shape curved surfaces, consists of a blade fastened between two handles, blades come in straight, concave and convex curves.
Stress grading	A stress grade is defined as the classification of timber for structural purposes by means of either visual or machine grading. The most frequently used are C16 and the stronger C24 grades for softwoods.
Tang	The metal part of a chisel which fits into the handle.
Tangential Sawn	Term used in timber conversion. When timber is sawn at a tangent to the heart. They are stronger when placed correctly edge up with the load in the tangential axis.
Tenon Saw	Small saw used for the cutting of the shoulders of a tenon
Through and through	Term used in timber conversion. Produces mostly tangentially sawn timber and some quarter sawn boards. Through and through timber is the most economical form of timber conversion.
Tongue and groove joint	A joint between two boards in which a raised area on the edge (tongue) of one board fits into a corresponding groove in the edge of the other to produce a flush surface. Commonly used in floor boards
Tungsten carbide tips (TCT)	Tungsten carbide tips on tooling are very abrasion resistant and can also withstand higher temperatures than standard high speed steel tools.
Twist drill	The most common and produced in largest quantity. It comprises a cutting point at the tip of a cylindrical shaft with helical flutes.
Waney edge	Boards or pieces of timber which, instead of being cut square, show the original curve of the log from which they are cut.

## Unit 101

# Principles of building construction, information and communication

<b>Level:</b>	4
<b>Credit value:</b>	6
<b>Aim:</b>	<p>The aim of this unit is to provide the learner with the knowledge of building methods and construction technology in relation to:</p> <ul style="list-style-type: none"><li>• Understanding a range of building materials used within the construction industry and their suitability to the construction of modern buildings</li><li>• Processes for disseminating information</li><li>• Basic concepts of effective communication.</li></ul>

<b>Learning outcome</b>
The learner will: 1. know how to identify information used in the workplace
<b>Assessment criteria</b>
The learner can: 1.1 identify <b>information sources</b> used in construction 1.2 identify the scale to use with <b>drawings</b> in relation to BS1192 1.3 identify <b>symbols</b> and <b>hatchings</b> from drawings in relation to BS1192 1.4 state the purpose of datums used in construction.

<b>Range</b>
<b>Information sources</b> Drawings, schedule, specifications, programme of work
<b>Drawings</b> Block plan, site plan, detail, section
<b>Symbols</b> WC, sink, bath, door, window
<b>Hatchings</b> Brickwork, timber (wrot and unwrot), blockwork, concrete, hardcore, sub soil/earth, insulation, damp proof course (DPC), damp proof membrane (DPM)

<b>Learning outcome</b>
The learner will: 2. know about environmental considerations in relation to construction
<b>Assessment criteria</b>
The learner can: 2.1 state <b>features</b> of a building that improves efficiency 2.2 state the importance of <b>waste management</b> .

<b>Range</b>
<b>Features</b> Design features that reduce consumption of water and energy: insulation and water harvesting/conservation
<b>Waste management</b> Reduce, reuse, recycle.

<b>Learning outcome</b>
The learner will: 3. know about construction of foundations
<b>Assessment criteria</b>
The learner can: 3.1 identify <b>types of foundations</b> 3.2 identify <b>materials</b> used in concrete foundations 3.3 state the <b>information</b> required to work out the quantity of materials used in a foundation 3.4 calculate volume of concrete used in single strip foundation.

<b>Range</b>
<b>Types of foundations</b> Strip, raft, pile, pad
<b>Materials</b> Course aggregate, fine aggregate, cement, water, steel reinforcement
<b>Information</b> Specification, dimensions

<b>Learning outcome</b>
The learner will: 4. know about construction of internal and external walls
<b>Assessment criteria</b>
The learner can: 4.1 identify <b>types</b> of internal and external walls 4.2 identify <b>external walling materials and components</b> 4.3 identify <b>internal walling materials and components</b> 4.4 calculate the area of a wall 4.5 identify <b>materials</b> and mix ratios used in mortar 4.6 identify <b>wall finishes</b> 4.7 state <b>paint systems</b> for new plaster.

<b>Range</b>
<b>Types</b> Solid, cavity, timber frame, stud
<b>External walling materials and components</b> Brick, block, timber, insulation, Damp proof course (DPC), wall ties,
<b>Internal walling materials and components</b> Stud (timber, metal), low density blockwork, plasterboard, plaster
<b>Materials</b> Sand, lime, plasticiser, cement
<b>Wall finishes</b> Plaster, render
<b>Paint systems</b> mist-coat/seal, two coats of emulsion

<b>Learning outcome</b>
The learner will: 5. know about construction of floors
<b>Assessment criteria</b>
The learner can: 5.1 identify <b>types of floors</b> 5.2 identify <b>components of solid concrete ground floors</b> 5.3 identify <b>components of timber</b> floors.

<b>Range</b>
<p><b>Types of floors</b> Solid concrete ground, timber (ground, upper)</p> <p><b>Components of solid concrete ground floors</b> Hardcore, blinding sand, damp proof membrane (DPM), insulation, oversite concrete, screed</p> <p><b>Components of timber</b> Oversite concrete, sleeper walls, wall plates, DPC, joists, insulation, floor covering</p>

<b>Learning outcome</b>
The learner will: 6. know about construction of roofs
<b>Assessment criteria</b>
The learner can: 6.1 identify <b>types of roofs</b> 6.2 identify <b>components of roofs</b> 6.3 state <b>paint systems for timber</b> 6.4 calculate the linear quantity of fascia board 6.5 state the importance of thermal insulation in a roof.

<b>Range</b>
<p><b>Types of roofs</b> Gable-ended, flat, hipped, lean-to</p> <p><b>Roof components</b> Ridge, batten/lathe, fascia, wall plate, felt, slate/tile, truss rafters, insulation, joists, wall plate straps.</p> <p><b>Paint systems for timber</b> Knotting, prime, undercoat, gloss, (water-based and solvent-based)</p>

<b>Learning outcome</b>
The learner will: 7. know how to communicate in the workplace
<b>Assessment criteria</b>
The learner can: 7.1 list <b>job roles</b> within construction 7.2 state <b>information</b> needed when recording a message 7.3 list <b>benefits</b> of clear and effective communication 7.4 list <b>benefits</b> of positive communication with colleagues and others 7.5 identify <b>communication methods</b> used to relay information to colleagues.

**Range****Job roles**

Professional, technician, trade, general operative

**Information**

Date, time, content, contact name and details

**Benefits (AC 7.3)**

Preventing errors, safe working, improved productivity

**Benefits (AC 7.4)**

Improved motivation, avoid conflict, complying with equality and diversity

**Communication methods**

Verbal, memos, telephone, email, radio, text messages

## Unit 113

# Maintain and use carpentry and joinery hand tools

<b>Level:</b>	4
<b>Credit value:</b>	6
<b>Aim:</b>	<p>The aim of this unit is to provide the learner with the knowledge and skills to be deemed trained to maintain and use carpentry and joinery hand tools in relation to:</p> <ul style="list-style-type: none"><li>• maintaining and storing hand tools</li><li>• using a range of carpentry and joinery hand tools.</li></ul>

<b>Learning outcome</b>
The learner will: 1. know how to maintain and use carpentry and joinery hand tools
<b>Assessment criteria</b>
The learner can: 1.1 state <b>methods</b> for sharpening chisels and planes 1.2 identify types of <b>sharpening equipment</b> 1.3 state <b>current legislation</b> associated with the operation of grinding wheels 1.4 identify potential <b>hazards</b> associated with <b>hand tools</b> and their <b>causes</b> .

<b>Range</b>
<b>Methods</b> Grinding and honing angles.
<b>Sharpening equipment</b> Diamond and oil stones, grinders.
<b>Current legislation</b> Provision and Use of Work Equipment Regulations (PUWER), Health and Safety at Work Act (HASWA), Abrasive Wheel Regulations.
<b>Hazards</b> Personal injury, damaging products, materials or equipment
<b>Hand tools</b> Handsaws, chisels, planes
<b>Causes</b>

Poorly maintained equipment, misuse, incorrectly held, used and stored tools.

<b>Learning outcome</b>
The learner will: 2. be able to maintain, use and store carpentry and joinery hand tools
<b>Assessment criteria</b>
The learner can: 2.1 work to a given risk assessment for using <b>hand tools</b> 2.2 <b>hone</b> and prepare hand tools ready for use 2.3 store hand tools and materials in a secure and safe manner 2.4 follow current environmental and relevant health and safety <b>regulations</b> relating to working with carpentry and joinery hand tools.

<b>Range</b>
<b>Hand tools</b> Chisels, planes  <b>Hone</b> Using oilstone, diamond stone.  <b>Regulations</b> Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.

<b>Learning outcome</b>
The learner will: 3. know how to use carpentry and joinery handsaws
<b>Assessment criteria</b>
The learner can: 3.1 state types and uses of carpentry and joinery <b>handsaws</b> 3.2 state why the <b>shape</b> and size of saw teeth are different for different uses.

<b>Range</b>
<b>Handsaw</b> Coping, tenon, panel, rip, pad, dovetail, crosscut.  <b>Shape</b> Rip, crosscut.



<b>Learning outcome</b>
The learner will: 4. be able to use carpentry and joinery handsaws
<b>Assessment criteria</b>
The learner can: 4.1 use carpentry and joinery <b>handsaws</b> to perform <b>tasks</b> to given <b>specifications</b> 4.2 follow current environmental and relevant health and safety <b>regulations</b> relating to working with carpentry and joinery handsaws.

<b>Range</b>
<b>Handsaw</b> Coping, tenon, panel, rip, pad, dovetail, crosscut.
<b>Tasks</b> Cutting across the grain, ripping with the grain, cutting curves and shapes, cutting manmade board.
<b>Specifications</b> Working drawings, given instructions.
<b>Regulations</b> Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.

<b>Learning outcome</b>
The learner will: 5. know how to use carpentry and joinery hand-held planes
<b>Assessment criteria</b>
The learner can: 5.1 state types and uses of carpentry and joinery hand-held <b>planes</b> 5.2 list <b>parts</b> of a carpentry and joinery hand-held plane 5.3 state why carpentry and joinery hand-held <b>planes</b> are available in different lengths.

<b>Range</b>
<b>Planes (AC 5.1)</b> Block, jack, smoothing, rebate and plough planes, spokeshaves.
<b>Parts</b> Knob, handle, lateral and depth adjustment, cap and backing iron, cutting iron/blade, sole, toe heel, mouth, frog.
<b>Planes (AC 5.3)</b> Bench planes – smoothing, jack, try

<b>Learning outcome</b>
The learner will: 6. be able to use carpentry and joinery hand-held planes
<b>Assessment criteria</b>
The learner can: 6.1 use <b>carpentry and joinery hand-held planes</b> to perform <b>tasks</b> to given <b>specifications</b> 6.2 follow current environmental and relevant health and safety <b>regulations</b> relating to working with hand-held planes.

<b>Range</b>
<b>Carpentry and joinery hand-held planes</b> Block, jack, smoothing, rebate and plough planes, spokeshaves.
<b>Tasks</b> Planing timber straight, square and to given width and thickness, forming grooves and rebates, internal and external curves, cleaning up.
<b>Specifications</b> Working drawings, given instructions.
<b>Regulations</b> Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.

<b>Learning outcome</b>
The learner will: 7. know how to use carpentry and joinery chisels
<b>Assessment criteria</b>
The learner can: 7.1 state types and uses of carpentry and joinery <b>chisels</b> and mallet 7.2 list <b>parts</b> of a chisel.

<b>Range</b>
<b>Chisels</b> Bevel edge, mortice, paring and firmer chisels.
<b>Parts</b> Blade, tang, washer, ferrule, handle.

<b>Learning outcome</b>
The learner will: 8. be able to use carpentry and joinery chisels
<b>Assessment criteria</b>

The learner can:

- 8.1 use **carpentry and joinery chisels** and mallet to perform **tasks** to given **specifications**
- 8.2 follow current environmental and relevant health and safety **regulations** related to working with carpentry and joinery chisels.

**Range**

**Carpentry and joinery chisels**

Bevel edge and mortice chisels.

**Tasks**

Creating housings and mortices, stopped chamfers and recesses

**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), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.

## Unit 114

# Prepare and use carpentry and joinery portable power tools

<b>Level:</b>	4
<b>Credit value:</b>	6
<b>Aim:</b>	<p>The aim of this unit is to provide the learner with the knowledge and skills to be deemed trained to prepare and use carpentry and joinery portable power tools in relation to:</p> <ul style="list-style-type: none"><li>• maintaining and storing portable power tools</li><li>• using a range of carpentry and joinery portable power tools.</li></ul>

<b>Learning outcome</b>
The learner will: 1. know how to maintain and store carpentry and joinery portable power tools
<b>Assessment criteria</b>
The learner can: 1.1 state types of <b>power sources</b> used for portable <b>power tools</b> 1.2 state the importance of having valid portable appliance test (PAT) date certificates 1.3 identify types of <b>tooling</b> and their uses 1.4 state the <b>safety equipment</b> required when using different types of portable power tools 1.5 state the importance of maintaining tools in relation to manufacturers' instructions 1.6 state <b>current legislation</b> associated with the operation of portable power tools 1.7 state the importance of storing portable power tools safely and securely 1.8 identify potential <b>hazards</b> associated with power tools and their <b>causes</b> .

<p><b>Range</b></p> <p><b>Power sources</b> Mains electric 240 and 110 volt, battery, gas, compressed air.</p> <p><b>Power tools</b> Sanders, screwdrivers, drills (hammer and SDS rotary), planer, router, jigsaw, hand held circular saw, chop saw and nail guns.</p> <p><b>Tooling</b> Router cutters, tungsten carbide tips (TCT) drill bits, saw blades and high speed steel (HSS) drill bits, auger bits, jigsaw blades, flat bits, countersink, planer blades, abrasive paper.</p> <p><b>Safety equipment</b> Ear defenders, ear plugs, dust masks, respirators, eye protection, guarding, local exhaust ventilation (LEV).</p> <p><b>Current legislation</b> Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.</p> <p><b>Hazards</b> Personal injury, damaging products, materials or equipment.</p> <p><b>Causes</b> Poorly maintained equipment, misuse, ejected dust and materials.</p>
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<p><b>Learning outcome</b></p> <p>The learner will:</p> <ol style="list-style-type: none"> <li>2. be able to maintain and store carpentry and joinery portable power tools</li> </ol>
<p><b>Assessment criteria</b></p> <p>The learner can:</p> <ol style="list-style-type: none"> <li>2.1 prepare types of <b>power sources</b> ready for operating portable <b>power tools</b></li> <li>2.2 check tools, guards and cables for damage and ensure tools have a valid test certificate</li> <li>2.3 charge batteries in accordance with the manufacturers' instructions</li> <li>2.4 change <b>tooling</b> on portable power tools in accordance with manufacturers' instructions</li> <li>2.5 check for damaged or incorrectly installed <b>tooling</b></li> <li>2.6 clean and store portable power tools safely and securely</li> <li>2.7 follow current environmental and relevant health and safety <b>regulations</b> relating to working with portable power tools.</li> </ol>

<b>Range</b>
<p><b>Power sources</b> Mains electric 240 and 110 volt, battery.</p> <p><b>Power tools</b> Sanders, screwdrivers, drills (hammer and SDS rotary), planer, router, jigsaw, chop saw, hand held circular saw.</p> <p><b>Tooling</b> Router cutters, tungsten carbide tips (TCT) drill bits, saw blades and high speed steel (HSS) drill bits, auger bits, jigsaw blades, flat bits, countersink, planer blades, abrasive paper..</p> <p><b>Regulations</b> Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.</p>

<b>Learning outcome</b>
The learner will: 3. know how to use carpentry and joinery portable power drills
<b>Assessment criteria</b>
The learner can: 3.1 state types and uses of <b>portable power drills</b> 3.2 state the different <b>types and sizes of screwdriver bits</b> 3.3 state the different <b>types</b> of drill bits 3.4 identify suitable <b>fixings</b> for different materials and <b>surfaces</b> 3.5 state methods used to locate <b>services</b> prior to carrying out the drilling operation.

<b>Range</b>
<p><b>Portable power drills</b> Drills (hammer and SDS rotary), screwdrivers.</p> <p><b>Types and sizes of screwdriver bits</b> Pozi-driv (PZ1,2,3), Philips (PH1,2,3), slotted.</p> <p><b>Types</b> Drills bits twist, auger, flat bits, countersink.</p> <p><b>Fixings</b> Plastic plugs, screws, cavity fixings, nails.</p> <p><b>Surfaces</b> Masonry, metal, concrete, timber and plasterboard.</p> <p><b>Services</b> Water pipes, waste pipes, gas pipes and electric cables.</p>

<b>Learning outcome</b>
The learner will: 4. be able to use carpentry and joinery portable power drills
<b>Assessment criteria</b>
The learner can: 4.1 use <b>portable power drills</b> to perform <b>tasks</b> to given <b>specifications</b> 4.2 follow current environmental and relevant health and safety <b>regulations</b> relating to working with portable power drills.

<b>Range</b>
<b>Portable power drills</b> Battery, screwdrivers.
<b>Tasks</b> Drilling (auger, flat, twist), countersinking, fixing.
<b>Specifications</b> Working drawings, given instructions.
<b>Regulations</b> Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.

<b>Learning outcome</b>
The learner will: 5. know how to use carpentry and joinery power saws
<b>Assessment criteria</b>
The learner can: 5.1 state <b>uses</b> of portable power <b>saws</b> 5.2 state the purpose of operation guards on portable power chop saws.

<b>Range</b>
<b>Uses</b> straight, angled cutting; cutting of curves and shapes
<b>Saws</b> chop saw, reciprocating saw/jigsaw, hand held circular saw

<b>Learning outcome</b>
The learner will: 6. be able to use carpentry and joinery portable power saws
<b>Assessment criteria</b>
The learner can: 6.1 use portable power chop saw to <b>cut</b> timber to given <b>specifications</b> 6.2 use portable power jigsaw to <b>cut</b> board materials to given <b>specifications</b> 6.3 follow current environmental and relevant health and safety <b>regulations</b> relating to working with portable power saws.

<b>Range</b>
<b>Cut (AC 6.1)</b> Straight, angled.
<b>Cut (AC 6.2)</b> Internal and external curves.
<b>Specifications</b> Working drawings, given instructions.
<b>Regulations</b> Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.

<b>Learning outcome</b>
The learner will: 7. know how to use carpentry and joinery portable power planers and routers
<b>Assessment criteria</b>
The learner can: 7.1 state <b>uses</b> of a portable power planer 7.2 state <b>uses</b> of a portable power router 7.3 identify types of <b>router cutters</b> 7.4 identify the <b>components</b> used to make adjustments to cutting depths and widths.

<b>Range</b>
<b>Uses (AC7.1)</b> Finishing timber, rebating, bevelling, sizing.
<b>Uses (AC 7.2)</b> Moulding, rebating, grooving, trimming, edging, housing trenching.
<b>Router cutters</b> Straight, ovolo, chamfer.



<p><b>Components</b> Fence, depth stop gauge.</p>
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<p><b>Learning outcome</b></p>
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<p>The learner will: 8. be able to use carpentry and joinery portable power planers and routers</p>
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<p><b>Assessment criteria</b></p>
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<p>The learner can: 8.1 adjust and use portable power planer to work timber to given <b>specifications</b> 8.2 adjust and use portable power router to work timber to given <b>specifications</b> 8.3 follow current environmental and relevant health and safety <b>regulations</b> relating to working with portable power planers and routers.</p>
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<p><b>Range</b></p>
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<p><b>Specifications</b> Working drawings, given instructions.</p>
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<p><b>Regulations</b> Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.</p>
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<p><b>Learning outcome</b></p>
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<p>The learner will: 9. know how to use carpentry and joinery portable power sanders</p>
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<p><b>Assessment criteria</b></p>
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<p>The learner can: 9.1 state <b>uses</b> of portable power <b>sanders</b> 9.2 identify <b>grades</b> and <b>uses</b> of abrasive paper.</p>
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<p><b>Range</b></p>
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<p><b>Sanders</b> Belt, orbital.</p>
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<p><b>Uses (AC 9.1)</b> Belt – stock removal, orbital – finishing.</p>
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<p><b>Grades</b> 60 – 240 grit.</p>
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<p><b>Uses (AC 9.2)</b> Fine grit – finishing, coarse grit – stock removal.</p>
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<b>Learning outcome</b>
The learner will: 10. be able to use carpentry and joinery portable power sanders
<b>Assessment criteria</b>
The learner can: 10.1 use portable power orbital sander to finish work to given <b>specifications</b> 10.2 follow current environmental and relevant health and safety <b>regulations</b> relating to working with portable power sanders.

<b>Range</b>
<b>Specifications</b> Working drawings, given instructions.
<b>Regulations</b> Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.

<b>Level:</b>	4
<b>Credit value:</b>	14
<b>Aim:</b>	<p>The aim of this unit is to provide the learner with the knowledge and skills to be deemed trained to produce basic woodworking joints in relation to:</p> <ul style="list-style-type: none"> <li>• forming basic woodworking joints</li> <li>• selecting and marking out materials</li> <li>• selecting and using hand tools.</li> </ul>

<b>Learning outcome</b>
<p>The learner will:</p> <ol style="list-style-type: none"> <li>1. know how to select and store materials used to produce woodworking joints</li> </ol>
<b>Assessment criteria</b>
<p>The learner can:</p> <ol style="list-style-type: none"> <li>1.1 state <b>methods</b> of timber conversion</li> <li>1.2 state <b>methods</b> of seasoning timber</li> <li>1.3 state the <b>importance</b> of storing and protecting <b>woodworking materials</b></li> <li>1.4 state the <b>characteristics</b> of different woodworking materials</li> <li>1.5 identify common <b>defects</b> founds in timber.</li> </ol>

<b>Range</b>
<p><b>Methods (AC1.1)</b> Through and through and quarter sawn, boxed heart, tangential.</p> <p><b>Methods (AC1.2)</b> Air dried and kiln dried.</p> <p><b>Importance</b> To prevent theft, damage (weather, accidental), defects (warping, twisting).</p> <p><b>Woodworking materials</b> Softwood, hardwood, timber manufactured boards (chipboard, plywood, medium density fibreboard (MDF)).</p> <p><b>Characteristics</b> Workability, durability, cell structure, tree growth, stress grading, hardwood and softwood, origin of timber, planed and sawn, common sizes.</p>

**Defects**

Natural (live knots, dead knots, cup shakes, sap ducts, waney edge, starshake, heartshake), seasoning (twists, cupping, springing, bowing), case hardening.

**Learning outcome**

The learner will:

2. know how to select and use hand tools to produce woodworking joints

**Assessment criteria**

The learner can:

- 2.1 state uses of woodworking **hand tools** when producing woodworking joints
- 2.2 identify the **holding devices** used to support the work
- 2.3 list common **faults** with woodworking hand tools.

**Range****Hand tools**

Chisels (bevel edged and mortice), mallets, tenon saw, handsaws, hammers, smoothing plane, wood-boring tools, marking squares, screwdrivers, mortice gauge, measuring tapes and rules, sash cramp, G-cramp, F-cramp.

**Holding devices**

Bench hook, vice, proprietary cramps.

**Faults**

Bluntness, split handles, loose parts, damaged.

**Learning outcome**

The learner will:

3. know the resources required to mark out woodworking joints

**Assessment criteria**

The learner can:

- 3.1 state the **importance** of using working drawings and setting out rods
- 3.2 identify **marking out tools**.

**Range****Importance**

To ensure accuracy, consistency.

**Marking out tools**

Tape measure, set square, compasses, dividers, rulers, marking gauges, pencils and trammels.

**Learning outcome**

The learner will:

4. be able to mark out woodworking joints

**Assessment criteria**

The learner can:

- 4.1 produce a setting out rod
- 4.2 use a setting out rod when marking out woodworking joints to form a frame
- 4.3 use appropriate **marking out tools** to produce woodworking joints to form a frame
- 4.4 follow current environmental and relevant health and safety **regulations** relating to marking out woodworking joints.

**Range**

**Marking out tools**

Tape measure, set square, compasses, dividers, rulers, marking gauges, pencils and trammels.

**Regulations**

Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), environmental regulations.

**Learning outcome**

The learner will:

5. be able to select and use hand tools and materials to produce basic woodworking joints

**Assessment criteria**

The learner can:

- 5.1 select **woodworking materials** in accordance with given **specifications** to produce woodworking joints
- 5.2 work to a given risk assessment for using **hand tools**
- 5.3 select and use woodworking hand tools to produce **woodworking joints**
- 5.4 use **holding devices** to support the work
- 5.5 identify **faults** with woodworking hand tools as appropriate
- 5.6 follow current environmental and relevant health and safety **regulations** relating to using woodworking hand tools.

**Range**

**Woodworking materials**

Softwood, hardwood, timber manufactured boards (chipboard, plywood, medium density fibreboard (MDF).

**Specifications**

Working drawings, given instructions.

**Hand tools**

Chisels (bevel edged and mortice), mallets, tenon saw, handsaws, hammers, smoothing plane, wood-boring tools, screwdrivers, sash cramp, G-cramp, F-cramp.

**Woodworking joints**

Housing, mortice and tenon, lengthening, bridle, halving, dovetail, mitre, butt and edge.

**Holding devices**

Bench hook, vice, proprietary cramps.

**Faults**

Bluntness, split handles, loose parts, damage.

**Regulations**

Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.

**Learning outcome**

The learner will:

6. know how to form a frame using woodworking joints

**Assessment criteria**

The learner can:

6.1 identify different **woodworking joints** used to form frames

6.2 state different **uses** for woodworking joints.

**Range****Woodworking joints**

Housing, mortice and tenon, lengthening (scarf, heading), bridle, halving, dovetail, mitre, butt and edge, widening (rubbed, loose tongue).

**Uses**

Framing, widening, lengthening.

**Learning outcome**

The learner will:

7. be able to form a frame using woodworking joints

**Assessment criteria**

The learner can:

7.1 produce and assemble **woodworking joints** to form a frame

7.2 follow current environmental and relevant health and safety **regulations** relating to using woodworking joints.

**Range****Woodworking joints**

Housing, mortice and tenon, bridle, halving, dovetail.

**Regulations**

Provision and Use of Work Equipment Regulations (PUWER), Personal Protective Equipment at Work (PPE), Control of Substances Hazardous to Health (COSHH), abrasive wheels regulations, vibration at work regulations, control of noise at work regulations, environmental regulations.

## Unit 201

## Health, safety and welfare in construction

<b>Level:</b>	5
<b>Credit value:</b>	7
<b>Aim:</b>	The aim of this unit is to provide the learner with the knowledge to carry out safe working practices in construction, in relation to sourcing relevant safety information and using the relevant safety procedures at work

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

<b>Range</b>
<b>Health and safety legislation</b> Health and Safety at Work Act, Reporting Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), Control of Substances Hazardous to Health (COSHH), Construction, Design and Management (CDM) regulations, Provision and Use of Work Equipment Regulations (PUWER), manual handling operations Regulations, Personal Protective Equipment (PPE) at Work Regulations, Work at Height Regulations, Control of Noise at Work Regulations, Control of Vibration at Work Regulations, Electricity at Work Regulations, Lifting operations and Lifting Equipment Regulations (LOLER)
<b>Employer responsibilities</b> 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.



<b>Learning outcome</b>
The learner will: 3. know how to identify hazards in the workplace
<b>Assessment criteria</b>
The learner can: 3.1 state the importance of <b>good housekeeping</b> 3.2 state reasons for risk assessments and method statements 3.3 identify <b>types of hazards</b> in the workplace 3.4 state the importance of the correct storage of combustibles and chemicals on site 3.5 identify different <b>signs and safety notices</b> used in the workplace.

<b>Range</b>
<b>Good housekeeping:</b> Cleanliness, tidiness, use of skips and chutes, segregation of materials, clear access to fire escapes, clear access to fire extinguishers.
<b>Types of hazards:</b> 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.
<b>Signs and safety notices:</b> Prohibition, mandatory, warning, safe condition, supplementary.

<b>Learning outcome</b>
The learner will: 4. know about health and welfare in the workplace
<b>Assessment criteria</b>
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 <b>precautions</b> that can be taken 4.3 state <b>risks</b> associated with drugs, alcohol and medication which could affect performance in the workplace.

<b>Range</b>
<b>Precautions</b> Reducing noise at source, PPE, isolation, exposure time.
<b>Risks</b> Reduced risk perception, loss of concentration, balance problems, absenteeism and reduced productivity.

<b>Learning outcome</b>
The learner will: 5. know how to handle materials and equipment safely
<b>Assessment criteria</b>
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 <b>lifting aids</b> when handling materials and equipment.

<b>Range</b>
<b>Lifting aids</b> Wheelbarrow, sack barrow, mechanical lifting aids, pallet truck.

<b>Learning outcome</b>
The learner will: 6. know about access equipment and working at heights
<b>Assessment criteria</b>
The learner can: 6.1 identify legislation relating to working at heights 6.2 identify types of <b>access equipment</b> 6.3 state <b>safe methods</b> of use for <b>access equipment</b> 6.4 identify <b>dangers</b> of working at height.

<b>Range</b>
<b>Access equipment:</b> Stepladders, ladders (pole, extension), trestles, hop-ups, proprietary scaffolding, podium, stilts
<b>Safe methods</b> Regular inspection, check for broken, damaged or missing components, responsible use, consideration of adverse weather conditions, good housekeeping
<b>Dangers</b> Falling tools, falling equipment, falling materials, persons falling from height (injuries to themselves and others).

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

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

<b>Learning outcome</b>
The learner will: 8. know how to use Personal Protective Equipment (PPE)
<b>Assessment criteria</b>
The learner can: 8.1 state the legislation governing use of Personal Protective Equipment (PPE) 8.2 state <b>types of PPE</b> used in the workplace 8.3 state the importance of PPE 8.4 state why it is important to store, maintain and use PPE correctly 8.5 state the importance of checking and reporting damaged PPE.

<b>Range</b>
<b>PPE:</b> Head protection, eye protection, ear protection, face/dust masks, breathing apparatus, high visibility clothing, safety footwear, gloves, sun protection, barrier cream, water proofs, knee pads, overalls/disposable clothing

<b>Learning outcome</b>
The learner will: 9. know the cause of fire and fire emergency procedures
<b>Assessment criteria</b>
The learner can: 9.1 state <b>elements</b> essential to creating a fire 9.2 identify methods of fire prevention 9.3 state actions to be taken on discovering a fire 9.4 state <b>types of fire extinguishers</b> and their uses.

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



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

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

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

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

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

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

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

## Useful contacts

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### International learners

General qualification information

E: [intcg@cityandguilds.com](mailto:intcg@cityandguilds.com)

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### Centres

Exam entries, Certificates,  
Registrations/enrolment, Invoices,  
Missing or late exam materials,  
Nominal roll reports, Results

E: [centresupport@cityandguilds.com](mailto:centresupport@cityandguilds.com)

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### Single subject qualifications

Exam entries, Results, Certification,  
Missing or late exam materials,  
Incorrect exam papers, Forms  
request (BB, results entry), Exam  
date and time change

E: [singlesubjects@cityandguilds.com](mailto:singlesubjects@cityandguilds.com)

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### International awards

Results, Entries, Enrolments,  
Invoices, Missing or late exam  
materials, Nominal roll reports

E: [intops@cityandguilds.com](mailto:intops@cityandguilds.com)

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### Walled Garden

Re-issue of password or username,  
Technical problems, Entries,  
Results, e-assessment, Navigation,  
User/menu option, Problems

E: [walledgarden@cityandguilds.com](mailto:walledgarden@cityandguilds.com)

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### Employer

Employer solutions, Mapping,  
Accreditation, Development Skills,  
Consultancy

T: +44 (0)121 503 8993

E: [business@cityandguilds.com](mailto:business@cityandguilds.com)

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### Publications

Logbooks, Centre documents,  
Forms, Free literature, Textbooks,  
Smartscreen

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

## **City & Guilds Group**

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

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