

Carpentry and Joinery

art | SKILLS
CENTRE



Carpentry and Joinery is a profession found in the construction industry, playing a significant role in building new homes, schools, hospitals, energy, and transport infrastructure. With growing demand for new homes, carpenters and joiners are required to create and install building components made mostly from wood.

This occupation includes two options; Site Carpenters, who work on construction sites preparing and installing basic building components and erecting structural carpentry, and Architectural Joiners, who work in a workshop producing building components like doors, windows, and staircases. Regardless of their role, employees work under supervision to create structures or components from designs that meet the client's expectations. Carpenters and Joiners liaise with other construction trades, architects, designers, supervisors, site management, contractors, and customers.

Entry Requirements

Employers will set their own entry requirements for this apprenticeship.

Apprenticeship Duration

This apprenticeship typically takes 24 months.

Level

This apprenticeship standard is set at level 2.

Qualifications

- Apprentices without level 2 English and maths will need to achieve this level prior to taking the End-Point Assessment.
- For those with an education, health and care plan or a legacy statement, the apprenticeship's English and maths minimum requirement is Entry Level 3. A British Sign Language (BSL) qualification is an alternative to the English qualification for those whose primary language is BSL.

End Assessment

The employer, training provider and apprentice will agree together about when the apprentice is ready to undertake the independent end assessment.

ART Providers Trainers

They will help the apprentice decide on a personal learning and development plan and help then setting a timetable of learning activities in preparation for the End Point Assessment (EPA). The ART Providers Training Consultant will meet with the apprentice regularly either online or face to face to complete and review assessments, provide further coaching and agree the next steps of the learning process.



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Core occupation duties:

Duty	Description	KSBs
Duty 1	Identify and confirm carpentry or joinery requirements and components against specification/drawings/CAD/BIM and in accordance with Building Regulations.	K4 K5 K7 K8 S4 S5 S6 B1 B3 B4
Duty 2	Locate, handle, store, load, transport and position materials and components safely, minimising damage so they are ready for application.	K3 S5 S6 B3
Duty 3	Prepare the site/workshop (including access equipment when necessary), power and hand tools appropriate to the project.	K9 K10 S2 S3 B3 B6
Duty 4	Calculate the most efficient quantity, length and area of resources.	K6 S2 S5 S6 B3 B4 B6
Duty 5	Use and maintain hand tools, power tools and associated equipment to achieve optimum performance.	K3 K9 S3
Duty 6	Maintain a clear and tidy workspace and ensure that waste materials are disposed of in accordance with current legislation.	K1 K2 K10 S1 B2
Duty 7	Carry out quality checks against specification and take remedial action where required or instructed.	K5 S6 B3 B5 B7

Option duties:

Site carpenter duties

Duty	Description	KSBs
Duty 8	Install building components including door and window frames, door and hatch linings, floor joists and coverings, straight partitions and straight staircases.	K11 K12 S7
Duty 9	Install doors, mouldings, ironmongery, service encasements, wall and floor units and fitments, cladding and staircase components.	K11 K13 S8 S9 S11
Duty 10	Erect inclined roofs with gables, joists, roof coverings and roof components.	K11 K14 S10

Advanced Architectural Joiner duties:

Duty	Description	KSBs
Duty 11	Produce setting out details for the manufacture of doors, windows and opening lights, units and stairs.	K15 K18 S14
Duty 12	Mark out timber from setting out details for the manufacture of doors, windows and opening lights, units and/or fitments and staircases.	K19 S15
Duty 13	Create, fit and assemble components to manufacture doors, windows with opening lights, units and/or fitments and staircases.	K15 K17 K20 K21 S13 S14 S15 S16 S1
Duty 14	Operate fixed workshop machinery in order to create joinery components.	K16 K20 S12 S16

KSBs

Knowledge

K1	The principles of environment, health, safety and welfare and how they must be applied in relation to their work and to others. eg electrical safety, storage of materials, accident & emergency procedures.
K2	The responsibilities under current legislation and official guidance to undertake the work e.g. Control of Substances Hazardous to Health, Manual Handling and Working at Height Regulations.
K3	How to use health and safety control equipment including personal protective equipment (PPE), respiratory protective equipment (RPE), local exhaust ventilation (LEV).
K4	The principles of building construction terminology and components including foundations, roofs, walls, floors, utilities and services, Building Information Modelling (BIM) and environmental and sustainability considerations.
K5	How to interpret and produce relevant information from drawings, specifications and work instructions including the basic principles of Computer Aided Design (CAD).
K6	How to estimate resource quantities to carry out work eg quantity of fixings, length of timber, sheet materials.
K7	How to communicate and work with others effectively in the workplace.
K8	the characteristics, quality, uses, sustainability, limitations and defects associated with timber and timber-based products and components, such as American and selected African hardwood, Scandinavian standards for softwood, MDF, plywoods, home grown carcassing, manufactured timbers, adhesives and mastics.
K9	Hand Tools : how to prepare, use and maintain hand tools including tool limitations and sharpening techniques e.g chisels, planes, hand saws, hammers.
K10	Power Tools: how to prepare, use and maintain power tools including the procedure for undertaking visual first use check eg portable circular saws, drills, saws, planers, routers, sanders, multi-functional tools and nail guns. How to produce jigs.
K11	The different types of fixings and fasteners for site carpentry work including their uses. Roof types, trussed (prefabricated) and traditional (built on site).
K12	How to carry out first fixing work including timber frames and linings, timber coverings, flat roof decking, timber stud partitions, straight flights of stairs and installing handrails and spindles to straight flights of stairs.
K13	How to carry out second fixing work including installation of service encasements, cladding, wall and floor units, mouldings, side hung doors and ironmongery.
K14	How to create structural carcassing work, how to erect trussed rafter roofs, how to construct gables, verge and eaves, how to install floor joists and coverings. Working at Height regulations.
K15	Fundamentals of Joinery including the different types of fixings and fasteners for architectural joinery work including their uses, the timber moisture content parameters for a range of timber and timber-based materials, the characteristics, uses and limitations for the different types of timber preservatives, the range, characteristics, uses and limitations of timber finishes, the requirements of fire door assemblies.
K16	How to prepare and use fixed machinery including their limitations and the procedure for undertaking visual first use checks including narrow bandsaws, crosscut saws, re-saws, panel saws, surface planers, thicknessers and morticers.
K17	Methods of connection including the resources required to mark out and form connection points and how to form products using different connection methods including joints, nails, screws, dowels, biscuit, staples, adhesives.
K18	Setting out including how to interpret information for setting out doors, door frames and linings, windows, fittings and straight stairs, how to prepare for producing setting out details for doors, windows, fittings and straight stairs, how to produce setting out details for doors, windows, fittings and straight stairs.
K19	Marking out including how to interpret information for marking out doors, door frames and linings, windows, fittings and straight stairs, how to prepare for marking out for doors, windows, fittings and straight stairs, how to mark out for doors, windows, fittings and straight stairs, the potential effects of marking out errors.
K20	Manufacture including how to interpret information for the production of doors, door frames and linings, window and fitting parts, straight stairs, how to prepare for the production of door, window, straight stairs and fitting parts, how to produce door, window and fitting parts, how to finish products to the specified standard for them to accept a range of finishes (e.g. paint, French polish).
K21	Methods to install ironmongery including the characteristics , quality, uses and limitations of ironmongery components hand and how to fix a range of ironmongery components e.g. hinges.

KSBs

Skills

S1	Identify and apply safe working practices in accordance with current legislation, health, safety and welfare regulations, Approved Codes of Practice, company guidance, site specific requirements and taking account of changing circumstances.
S2	Plan and undertake work practices productively.
S3	Identify and apply safe use, storage and maintenance of hand tools, power tools and equipment.
S4	Correctly interpret information from drawings and specifications in various types and formats. eg electronic devices, Computer Aided Design (CAD).
S5	Estimate resource quantities to carry out work eg quantity of fixings, length of timber.
S6	Demonstrate a range of fundamental skills including measuring, marking out, fitting, cutting, splicing, mitring, scribing, horizontal and vertical levelling (including laser levelling), finishing, positioning and securing.
S7	Carry out first fixing work including install timber frames and linings, coverings, flat roof decking, install straight flights of stairs and erect timber stud partitions. Install handrails and spindles to straight flights of stairs.
S8	Carry out second fixing work including install service encasement, cladding, wall and floor units and fitments, side hung doors, ironmongery and timber mouldings.
S9	Carry out timber stud partition work.
S10	Erect rafter roofs, for example trussed (prefabricated) or traditional (built on site) including the construction of verge and eaves.
S11	Install floor joists and coverings.
S12	Inspect, prepare and operate fixed machinery including narrow bandsaw, crosscut saw, re-saw, surface planer, thicknesser, morticer.
S13	Form connections including mark out connection points, select and use hand tools and materials to produce connection points, form products using different connection methods including joints, nails, screws, dowels, biscuit, staples, adhesives.
S14	Produce setting out details including interpret information for setting out doors, door frames and linings, windows with opening lights, fittings and straight stairs.
S15	Mark out including interpret information for marking out doors, door frames and linings, windows with opening lights, straight stairs and fitting parts.
S16	Manufacture routine architectural joinery products including interpret information, prepare for production and produce doors, windows with opening lights, straight stairs and fitting parts.
S17	Install a range of common ironmongery components for doors, windows and units using a range of hand and power tools.

Behaviours

B1	Effective communication: oral, written, listening, body language, presentation.
B2	Effective team working: work effectively with others with limited supervision.
B3	Independent working: take responsibility for completing their own work.
B4	Logical thinking: use clear and valid reasoning when making decisions.
B5	Working effectively: undertake the work in a reliable and productive manner.
B6	Time management: use own time effectively to complete the work on schedule.
B7	Adaptability: be able to adjust to changes to work instructions.

Independent End Point Assessment

The independent end assessment ensures that all apprentices consistently achieve industry-set professional standards and can start working immediately once they have completed a minimum period of learning and development

Summary of independent end point assessment process

The end point assessment consists of three methods:

Assessment method 1: Knowledge test
Which will end with either of the following grades: Fail or Pass or Distinction.

Assessment method 2: Practical test
Which will end with either of the following grades: Fail or Pass or Distinction.

Assessment method 3: Professional discussion
Interview underpinned by a portfolio of evidence which will end with either of the following grades: Fail or Pass or Distinction.

Performance in these assessment methods will determine the overall apprenticeship standard grade of Fail or Pass or Distinction.

The end point assessment would typically take 6 months.

Knowledge Test

The test format will be computer based. A paper-based version must however be available for reasonable adjustments.

Knowledge test will consist of 40 multiple choice questions.



Practical Test

Apprentices must be observed by an independent assessor completing a practical test which is split into 4 tasks in which they will demonstrate the KSBs assigned to this assessment method.

The practical test will take 7 hours. It may be split into four discrete sections (tasks) held over a maximum of 1 working day. The tasks will have the following timings:

- Task 1: 90 minutes
- Task 2: 90 minutes
- Task 3: 120 minutes
- Task 4: 120 minutes



Professional Discussion

The professional discussion is an in-depth, two-way dialogue between the apprentice and the independent assessor:

- The independent assessor will undertake the professional discussion and, wherever possible must be the same independent assessor who conducts observation of leadership.
- The professional discussion is for the independent assessor to ask the apprentice questions in relation to knowledge, skills and behaviours.
- The professional discussion should take 60 minutes.
- The independent assessor will ask questions to ensure all the relevant behaviours, knowledge and skills that are mapped to this assessment method are covered.

