

Carpentry and Joinery in Construction

Trailblazer Apprenticeship

On-Programme Training Specification

September 2018 Version 1

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Employer Occupational Brief

On-programme Assessment - Delivery of Training

Although the employer is at liberty to select the way that the apprentice is trained, in most cases a suitable accredited training qualification, such as those listed below, delivered by an accredited training provider will be the best way of delivering training to an apprentice.

- Level 2 Diploma in Site Carpentry
- Level 2 Diploma in Architectural Joinery

Employers must ensure that any training delivery purchased, or delivered in-house, covers all knowledge and skills requirements detailed in the apprenticeship standard.

In order to assist employers in selecting a suitable qualification and training provider, and to help relevant organisations to develop qualifications that comply with the carpentry and joinery apprenticeship standard, detailed industry training specifications have been developed and are attached at Annex A – Site Carpenter and Annex B – Architectural Joiner of this document.

Delivering Consistent Assessment Judgements

On-programme assessments will be delivered as part of a National Vocational Qualification (NVQ), awarded by an externally accredited awarding organisation, subject to monitoring and review by Ofqual. In those rare cases where an employer chooses to deliver apprentice training in a different way, the employer must demonstrate to the assessment organisation that the apprentice has satisfied the requirements of the assessment gateway, before the apprentice is able to progress to the end point assessment. Apprenticeship Assessment organisations must ensure that end point assessments are freely available.

Delivering Reliable Assessment judgements

The apprenticeship standard clearly defines the skills and knowledge requirement of the occupation and all assessment decisions are based on these standards. By including an employer occupational brief as an annex to this assessment plan, employers can ensure that any learning and assessment services procured will be in harmony with the industry training specification and the requirements of the apprenticeship standard. Independent assessment bodies will have robust systems in place to ensure that apprentices assessed in different parts of the country, by different assessors, are assessed in a consistent manner to the same standard.

(Annex A) Industry Training Specification – Site Carpentry

(Level 2) - Knowledge and Skills Requirements

Core Requirements

Health, Safety and Welfare	
Skill Requirements	Knowledge Requirements
None applicable	<p>The learner must:</p> <ul style="list-style-type: none"> • Know the health, safety and welfare regulations, including roles and responsibilities • Know the requirements of the COSHH regulations • Know the accident and emergency procedures and reporting requirements • Know how to undertake hazard identification in the workplace • Know the principles of health and hygiene in the workplace • Know the procedures for the identification and removal of hazardous waste • Know how to handle and store materials appropriately • Know the principles of working at height and how to use access equipment • Know the principles of electrical safety in the workplace • Know how to use health and safety control equipment including personal protective equipment (PPE), respiratory protective equipment (RPE), local exhaust ventilation (LEV) • Know the fire and emergency procedures • Know the different workplace signs and safety notices and their meaning

Principles of Building Construction	
Skill Requirements	Knowledge Requirements
None applicable	<p>The learner must:</p> <ul style="list-style-type: none"> • Know the principles of foundations construction • Know the principles of internal and external wall construction • Know the principles of floor construction • Know the principles of roof construction • Know the principles of utility and services supply, including location identification and the hazards associated with incorrect location identification • Know the environmental and sustainability considerations • Know the basic principles of Building Information Modelling (BIM)

Information, Quantities and Communication	
Skill Requirements	Knowledge Requirements
None applicable	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to interpret and produce relevant information • Know how to estimate resource quantities • Know communicate effectively in the workplace • Know the basic principles of Computer Aided Design (CAD)

Specific Requirements

Fundamentals of Site Carpentry	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to develop and demonstrate a range of work skills including measuring, marking out, fitting, cutting, splicing, mitring, scribing, levelling (including laser levelling), plumb, finishing, positioning and securing. 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know the characteristics , quality, uses and limitations of relevant raw materials • Know the different defects associated with relevant raw materials • Know the different types of fixings and fasteners for site carpentry work including their uses

Prepare and Use Hand Tools	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to prepare hand tools prior to use • Be able to maintain hand tools • Be able to store hand tools • Be able to use hand saws • Be able to use hand held planes • Be able to use chisels • Be able to use hammers 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to prepare hand tools prior to use • Know how to maintain hand tools including sharpening techniques for chisels and planes • Know how to store hand tools • Know the procedures for reporting defects with hand tools • Know how to use hand saws, hand held planes, chisels and hammers • Know the uses and limitations of hand saws, hand held planes, chisels and hammers and how to apply them

Prepare and Use Power Tools	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to prepare power tools prior to use • Be able to maintain power tools • Be able to use circular saws • Be able to use power drills • Be able to use power saws • Be able to use power planers • Be able to produce jigs and use power routers • Be able to use power sanders • Be able to use power nail guns • Be able to store power tools 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to prepare power tools prior to use, including the procedure for undertaking visual first use checks • Know how to maintain power tools • Know how to store power tools • Know the procedure for reporting defects with portable power tools • Know how to use portable circular saws, power drills, power saws, power planers, power routers, power sanders and power nail guns • Know how to produce jigs • Know the uses and limitations of portable circular saws, power drills, power saws, power planers,

	power routers, power sanders, power nail guns and how to apply them
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Carry Out First Fixing Work	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to install timber frames and linings • Be able to install timber coverings • Be able to install flat roof decking • Be able to erect timber stud partitions • Be able to install straight flights of stairs and handrails 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to prepare to carry out first fixing work • Know how to install timber frames and linings • Know how to install timber coverings • Know how to install flat roof decking • Know how to erect timber stud partitions • Know how to install straight flights of stairs and handrails

Carry Out Second Fixing Work	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to install service encasements • Be able to install cladding • Be able to install wall and floor units and fitments • Be able to install side hung doors • Be able to install ironmongery • Be able to install timber mouldings 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to prepare to carry out second fixing work • Know how to install service encasements • Know how to install cladding • Know how to install wall and floor units and fitments • Know how to install side hung doors • Know how to install ironmongery • Know how to install timber mouldings

Carry Out Structural Carcassing Work	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to erect trussed rafter roofs • Be able to construct gables, verge and eaves • Be able to install floor joists 	<p>The learner must be:</p> <ul style="list-style-type: none"> • Know how to prepare for structural carcassing work • Know how to erect trussed rafter roofs • Know how to construct gables, verge and eaves • Know how to install floor joists

Maintain Basic Non-structural Carpentry Work	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to repair timber doors • Be able to repair timber window frames • Be able to repair timber mouldings • Be able to replace guttering and fixings • Be able to replace sash window cords 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to prepare for maintenance work • Know how to repair timber doors • Know how to repair timber window frames • Know how to repair timber mouldings • Know how to replace guttering and fixings • Know how to replace sash window cords

(Annex B) Industry Training Specification – Architectural Joinery

(Level 2) - Knowledge and Skills Requirements

Core Requirements

Health, Safety and Welfare	
Skill Requirements	Knowledge Requirements
None applicable	<p>The learner must:</p> <ul style="list-style-type: none"> • Know the health, safety and welfare regulations, including roles and responsibilities • Know the requirements of the COSHH regulations • Know the accident and emergency procedures and reporting requirements • Know how to undertake hazard identification in the workplace • Know the principles of health and hygiene in the workplace • Know the procedures for the identification and removal of hazardous waste • Know how to handle and store materials appropriately • Know the principles of working at height and how to use access equipment • Know the principles of electrical safety in the workplace • Know how to use health and safety control equipment including personal protective equipment (PPE), respiratory protective equipment (RPE), local exhaust ventilation (LEV) • Know the fire and emergency procedures • Know the different workplace signs and safety notices and their meaning

Principles of Building Construction	
Skill Requirements	Knowledge Requirements
None applicable	<p>The learner must:</p> <ul style="list-style-type: none"> • Know the principles of foundations construction • Know the principles of internal and external wall construction • Know the principles of floor construction • Know the principles of roof construction • Know the principles of utility and services supply, including location identification and the hazards associated with incorrect location identification • Know the environmental and sustainability considerations

Information, Quantities and Measurements	
Skill Requirements	Knowledge Requirements
None applicable	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to interpret and produce relevant information • Know the different types of information relevant to architectural joinery (e.g. drawings, bills of quantity, quotations, specifications and manufacturers' literature) • Know how to estimate resource quantities • Know how to take site measurements taking account of any tolerances that will be applicable • Know the basic principles of computer aided design (CAD)

Specific Training Requirements

Fundamentals of Architectural Joinery	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to develop and demonstrate a range of work skills including drawing, measuring, marking out, fitting, mitring, scribing, levelling (including laser levelling), plumb, finishing, positioning and securing. 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know the characteristics , quality, uses and limitations of relevant raw materials • Know the different defects associated with relevant raw materials • Know the different types of fixings and fasteners for architectural joinery work including their uses • Know the timber moisture content parameters for a range of timber and timber-based materials • Know the characteristics, uses and limitations for the different types of timber preservatives • Know the range, characteristics, uses and limitations of timber finishes

Prepare and Use Hand Tools	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to prepare hand tools prior to use • Be able to maintain hand tools • Be able to use handsaws • Be able to use hand held planes • Be able to use chisels • Be able to use hammers • Be able to store hand tools 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to prepare hand tools prior to use • Know how to maintain hand tools including sharpening techniques for chisels and planes (including the use of grinding wheels) • Know how to store hand tools • Know how to use hand saws, hand held planes, chisels and hammers • Know the uses and limitations of hand saws, hand held planes, chisels, hammers and how to apply them

Prepare and Use Power Tools	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to prepare power tools prior to use • Be able to maintain power tools • Be able to and use circular saws • Be able to use power drills • Be able to use power saws • Be able to use power planers • Be able to produce jigs and use power routers • Be able to use power sanders • Be able to use power nail guns • Be able to store power tools 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to prepare power tools prior to use, including the procedure for undertaking visual first use checks • Know how to maintain power tools • Know how to store power tools • Know the procedure for reporting defects with portable power tools • Know how to use portable circular saws, power drills, power saws, power planers, power routers, power sanders and power nail guns • Know how to produce jigs • Know the uses and limitations of portable circular saws, power drills, power saws, power planers, power routers, power sanders, power nail guns and how to apply them

Prepare and Use Fixed Machinery	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to prepare fixed machinery prior to use • Be able to inspect and maintain fixed machinery • Be able to use a narrow bandsaw • Be able to use a crosscut saw • Be able to use a re-saw • Be able to use a surface planer • Be able to use a thicknesser • Be able to use a morticer 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to prepare fixed machinery prior to use, including the procedure for undertaking visual first use checks • Know how to maintain fixed machinery • Know the procedure for reporting defects with fixed machinery • Know how to use narrow bandsaws, crosscut saws, re-saws, surface planers, thicknessers and morticers • Know the uses and limitations of narrow bandsaws, crosscut saws, re-saws, surface planers, thicknessers and morticers and how to apply them

Methods of Connection	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to mark out connection points • Be able to select and use hand tools and materials to produce connection points • Be able to form products using different connection methods including joints, nails, screws, dowels, biscuit, staples, adhesives 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know how to select and store appropriate materials • Know how to select and use appropriate hand tools • Know the resources required to mark out and form connection points • Know how to form products using different connection methods including joints, nails, screws, dowels, biscuit, staples, adhesives

Produce Setting Out Details for Routine Architectural Joinery Products**Skill Requirements****The learner must:**

- Be able to interpret information for setting out doors, windows, fittings and straight stairs
- Be able to prepare for producing setting out details for doors, windows, fittings and straight stairs
- Be able to produce setting out details for doors, windows, fittings and straight stairs

Knowledge Requirements**The learner must:**

- Know how to interpret information for setting out doors, windows, fittings and straight stairs
- Know how to prepare for producing setting out details for doors, windows, fittings and straight stairs
- Know how to produce setting out details for doors, windows, fittings and straight stairs

Mark Out from Setting Out Details for Routine Architectural Joinery Products**Skill Requirements****The learner must:**

- Be able to interpret information for marking out doors, windows, fittings and straight stairs
- Be able to prepare for marking out for doors, windows, fittings and straight stairs
- Be able to mark out for doors, windows, fittings and straight stairs

Knowledge Requirements**The learner must:**

- Know how to interpret information for marking out doors, windows, fittings and straight stairs
- Know how to prepare for marking out for doors, windows, fittings and straight stairs
- Know how to mark out for doors, windows, fittings and straight stairs
- Know the potential effects of marking out errors on the work

Manufacture Routine Architectural Joinery Products**Skill Requirements****The learner must:**

- Be able to interpret information for the production of door, window and fitting parts
- Be able to prepare for the production of door, window and fitting parts
- Be able to produce door, window and fitting parts

Knowledge Requirements**The learner must:**

- Know how to interpret information for the production of door, window and fitting parts
- Know how to prepare for the production of door, window and fitting parts
- Know how to produce door, window and fitting parts
- Know how to finish products to the specified standard for them to accept a range of finishes (e.g. paint, French polish)

Installation of Ironmongery	
Skill Requirements	Knowledge Requirements
<p>The learner must:</p> <ul style="list-style-type: none"> • Be able to interpret information for the installation of ironmongery components • Be able to prepare for the installation of ironmongery components • Be able to use hand and power tools to fix a range of ironmongery components 	<p>The learner must:</p> <ul style="list-style-type: none"> • Know the characteristics , quality, uses and limitations of ironmongery components • Know how to interpret information for the installation of ironmongery components • Know how to prepare for the installation of ironmongery components • Know how to use hand and power tools to fix a range of ironmongery components (e.g. hinges)