Unit 335: Maintain non-structural carpentry work

# Delivery guide

Unit information

This unit is about the maintenance of non-structural carpentry components within domestic properties.

Learners may be introduced to this unit by asking themselves questions such as:

* What is the difference between non-structural and structural carpentry work?
* What health and safety issues do I need to consider when carrying out repairs?
* When do I replace something rather than splicing?
* How do I change sash cords?

Please note that whilst there is alignment between this unit and Progression unit 216, there is additional content within Learning outcome 3, criteria 3.2.

Learning outcomes

1. Understand resource selection
2. Understand working to a contract specification
3. Comply with the given contract information to carry out the work safely and efficiently to the required specification

Suggested resources

Textbooks

* Jones, S., Redfern, S., Fearn, C. (2019) *The City & Guilds Textbook: Site Carpentry and Architectural Joinery for the Level 2 Apprenticeship (6571), Level 2 Technical Certificate (7906) & Level 2 Diploma (6706)*. London: Hodder Education.   
  ISBN 978-1-5104-5813-0
* Burdfield, M., Jones, S., Redfern, S., Fearn, C. (2020) *The City & Guilds Textbook: Site Carpentry & Architectural Joinery for the Level 3 Apprenticeship (6571), Level 3 Advanced Technical Diploma (7906) & Level 3 Diploma*. London: Hodder Education. ISBN 978-1-5104-5815-4

Websites

* [BRE | Certification and Listings](https://www.bregroup.com/services/certification-and-listings/)
* [BRE | Expertise: Fire](https://www.bregroup.com/expertise/fire/)
* [BWF | Homepage](https://www.bwf.org.uk/)
* [CADW | Conservation Principles in Action](https://cadw.gov.wales/advice-support/conservation-principles/conservation-principles-action)
* [Ironmongery Direct | Homepage](https://www.ironmongerydirect.co.uk/)
* [NHBC Standards | Homepage](https://nhbc-standards.co.uk/)
* [TRADA | Publications](https://www.trada.co.uk/publications/)
* [TRADA | List of British Standards June 2021](https://www.trada.co.uk/publications/british-standards-lists/list-of-british-standards-june-2021/)

British Standards

* BS 8000-5:1990 *Workmanship on building sites. Code of practice for carpentry, joinery and general fixings*.
* BS EN 13647:2021 *Wood flooring and wood panelling and cladding. Determination of geometrical characteristics*.
* ISO 19049:2016 *Timber structures. Test method. Static load tests for horizontal diaphragms including floors and roofs*.
* BS 8233:2014 *Guidance on sound insulation and noise reduction for buildings.*

Legislation

* [HSE | ACOPs](https://www.hse.gov.uk/legislation/legal-status.htm)
* [HSE | COSHH](https://www.hse.gov.uk/coshh/)
* [HSE | Construction dust: Cutting and sanding Wood](https://www.hse.gov.uk/construction/healthrisks/hazardous-substances/cutting-and-sanding-wood.htm)
* [HSE | Health and Safety at Work etc Act (HASAWA) 1974](https://www.hse.gov.uk/legislation/hswa.htm)
* [HSE | PUWER](https://www.hse.gov.uk/work-equipment-machinery/puwer.htm)
* [HSE | RIDDOR](https://www.hse.gov.uk/riddor/)
* [HSE | PPE](https://www.hse.gov.uk/toolbox/ppe.htm)
* [GOV.UK | The Building Regulations 2010 (as appropriate to site carpentry)](https://www.legislation.gov.uk/uksi/2010/2214/contents/made)
* [GOV.UK | The Manual Handling Operations Regulations 1992](https://www.legislation.gov.uk/uksi/1992/2793/made)
* [GOV.UK | The Control of Noise at Work Regulations 2005](https://www.legislation.gov.uk/uksi/2005/1643/regulation/6)
* [GOV.UK | Structure: Approved Document A](https://www.gov.uk/government/publications/structure-approved-document-a)
* [GOV.UK | Fire safety: Approved Document B](https://www.gov.uk/government/publications/fire-safety-approved-document-b)
* [GOV.UK | Protection from falling, collision and impact: Approved Document K](https://www.gov.uk/government/publications/protection-from-falling-collision-and-impact-approved-document-k)
* [GOV.UK | Conservation of fuel and power: Approved Document L](https://www.gov.uk/government/publications/conservation-of-fuel-and-power-approved-document-l)
* [GOV.UK | Access to and use of buildings: Approved Document M](https://www.gov.uk/government/publications/access-to-and-use-of-buildings-approved-document-m)
* [GOV.UK | Material and workmanship: Approved Document 7](https://www.gov.uk/government/publications/material-and-workmanship-approved-document-7)

| **Learning outcomes** | **Criteria** | **Delivery guidance** |
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| 1. Understand resource selection | * 1. Characteristics of the resources | * Learners to be given assignments setting tasks to repair specific doors and windows in their training centre, allowing them to understand the characteristics and suitability of materials when selecting resources for the maintenance and replacement of non-structural carpentry and joinery components, including: * how to recognise the profiles used in window- and door-frame construction * how to identify and match materials used to splice, repair or replace timber components * the selection of ironmongery used in maintaining and repairing carpentry items * window ironmongery including casement stays, catches, hinges (storm proof), butts, sliding sash pulleys, catches, locks * door furniture including locks (rim, sash, cylinder night, mortice, euro latch, mortice, roller ball), hinges, hinge bolts, tower bolts, letterplates, handles (lever and knob), security viewers. * Learners to carry out a ‘defects survey’ of appropriate areas within their training centre, allowing them to: * identify defects that can affect structural integrity * know when components need replacing and identify those defects that only affect the aesthetics. * Learners to research suitable sustainable alternatives to repairing, i.e. total replacements, upgrades. |
| * 1. Use of resources | * Learners to be given a range of materials and asked to identify which are most suitable for each specific location: * to splice window cills, jambs, rails and stiles * to make repairs to door frames and linings * to replace sash cords * to replace defective components * to work at height, making repairs to eaves and verge finishes * to ensure repairs to mouldings match * suitable protective coatings used to seal end grain and protect surfaces. * Learners to know the procedures for reporting problems with selected resources including defective materials found at point of delivery and during the construction process. |
| * 1. Organisational procedures to select resources | * Learners to be given an activity and accompanying documents, including drawings, specifications, schedules and manufacturer’s information, where they have to requisition and order resources to complete the specific tasks using organisational procedures including: * completing a standard proforma requisition order form * compiling a material list for a range of second fix carpentry tasks. |
| * 1. Hazards | * Learners to write a risk assessment for a given task of maintenance and replacement of non-structural carpentry components. Learners to display the correct method of work required to complete the task safely. |
| 1. Understanding working to a contract specification | * 1. Methods of work | * Learners to write a method statement for the task in 1.4. * Learners to follow the training centre’s procedure to report a problem posed in a given scenario to ensure all relevant parties are informed. |
| * 1. Tools and equipment | * Learners to be assigned a small range of tools each and to write a care leaflet identifying how to safely sharpen, maintain and store hand and power tools and how to check, store and maintain equipment required to maintain and replace non-structural carpentry and joinery components and record any faults found. * Hand tools to include: * saws (hand, tenon and coping) * measuring equipment (tapes and rules) * screwdrivers (slot and pozidriv) * bradawls * hammers (claw, lump and pein) * squares (combination and try) * sliding bevels * marking gauges * bevel-edged chisels * sharpening stones * nail punches * pinchers * planes (smoothing and block) * levels * string lines * chalk lines * scrapers * filler knives * paint brushes * trimming knives * drill bits (auger, spade and high-speed steel (HSS)) * clamps * abrasive papers * sanding blocks. * Power tools to include: * chop saw * circular saw * jig saw * multi-cutter * brad nailer * sanders (orbital and belt) * drill/driver * routers and cutters * planer. * Learners to research how access equipment, including hop ups, mobile/static tower scaffolds, ladders, step ladders, saw stools, should be stored and maintained. |
| 1. Comply with the given contract information to carry out the work safely and efficiently to the required specification | * 1. Demonstrate work skills to measure, mark out, cut, splice, fit, finish, position, and secure materials | * Learners to be given a range of tasks which allows them to: * carry out repairs to door and/or window frames including the replacement or splicing of defective components * carry out repairs or splicing of rotten or damaged decorative mouldings * hang replacement doors * replace single- and double-glazed units and carry out repairs to sashes * splice and replace defective eaves and verge components * replace single and double sash cords * apply primers and clear preservative coatings during the repair and replacement process. |
| * 1. Use and maintain hand and power tools to either repair or replace four of the following: * frames * mouldings * doors * windows (including replacement glazing) * door and or window ironmongery * verge and or eaves * sash cords * prime the repair work | * Learners to follow the care leaflets previously produced in 2.2 to be able to select, safely set up, use and maintain the different types of hand tools, power tools and associated equipment. * Hand tools to include: hand saw, coping saw, measuring equipment (tapes and rules), slot and pozidriv screwdrivers, bradawl, hammers (claw, lump and pein), combination square, try square, sliding bevel, bevel-edged chisels, sharpening stone, nail punches, pinchers, smoothing plane, block plane, levels, string line, chalk line, scrapers, filler knives, paint brushes, trimming knife, auger, spade and HSS bits, clamps, abrasive paper sanding blocks, marking gauge. * Power tools to include: chop saw, circular saw, jig saw, multi-cutter, brad nailer, sanders (orbital and belt), drill/driver, routers and cutters, planer. * Learners to be able to select, safely handle, stack and store resources using correct manual handling techniques. |