Unit 303: Fitting doors, windows and their finishings

Sample scheme of work

Please revise the following text to suit your requirements.

This sample scheme of work covers both classroom and workshop based learning for unit 303. It is based on three-hour sessions with a 15-minute break halfway through each session. There are 20 sessions giving a total of 60 guided learning hours. The scheme of work includes 7 theory lessons followed by 12 practical sessions to allow the learner to practise activities involved with installing double doors and bay windows. Within the practical activities there is scope to challenge and stretch learners.

This is an example only of a possible scheme of work and is based on theory and practical within an FE centre delivering the Advanced Technical Diploma Level 3 in Site Carpentry. It can be amended to suit all learning facilities with the necessary adjustments to meet individual learners' needs. Unit 303 is designed as a stand-alone unit and should be used in conjunction with the standards set for the qualification to ensure full coverage of the learning requirements.

You can use the sample scheme of work as it is, adjust it or extract content to create a scheme of work to suit your delivery needs. It can also be adjusted by adding theory and practical workshops to support learners who have/need additional learning time.

Reference is made within the scheme of work to learning materials and other resources required for each session. A version of this scheme of work with **full supporting materials** is also available to purchase on **SmartScreen.co.uk**. Resources consist of physical equipment required, as well as any technologies needed. Where possible we have included blended learning activities that make good use of technology so as to help centres fulfil the minimum amount of digital teaching recommended by government.

Centres should also incorporate the following themes, where appropriate, as strands running through each of the sections within the qualification. Although they are not specifically referred to in the section content section, City & Guilds regards these as essential in the teaching of the qualification:

- health and safety considerations, in particular the need to impress upon learners the fact that they must preserve the health and safety of others as well as themselves
- functional skills (mathematics, English and ICT)
- extension tasks and differentiation, inclusion, entitlement and equality issues
- spiritual, moral, social and cultural issues
- environmental education and related European issues
- British values
- values and behaviours
- use of information learning technology (ILT).

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Unit 303: Fitting doors, windows and their finishings

Sample scheme of work

Course/qualification: _____ **Tutor's name**: _____

Number of sessions: 20 **Delivery hours**: 60 **Venue**: _____ **Group**: _____

Aims	**To enable learners to**:
The aim of this unit is to: • provide the learner with the knowledge and skills to carry out the installation of complex non-standard doors, bay windows and their finishings in accordance with the current health and safety and Building Regulations.	• Install complex doors, bay windows and ironmongery

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Session	Objectives/learning outcomes **The learner will:**	Activities and resources	Assessment
Theory activities **Session 1** (3 hours)	**Learning outcome 1: Install complex doors, bay windows and ironmongery** **Topic 1.1 Types of double doors and ironmongery** • Types of double doors and ironmongery	**Session 1: Information required to choose the type of double doors, garage, French, rebated, sliding, single and double action** **Activities:** • Introduction to unit • Tutor to outline the main considerations in selecting materials and designs of double doors • Learners to complete Activity 1 by identifying the considerations that should be taken into account when choosing the type of double doors to fit • Learners to prepare a few brief notes in small group discussions on the requirements needed for producing double doors and frames, then share these ideas in a whole group discussion • Learners to complete Activity 2 by listing the main considerations to be taken into account when installing a set of new entrance double doors for an office **Resources:** • Activity 1: Questions on suitable choices for double doors • Activity 2: Learners to list the main considerations to be taken into account when installing a set of new entrance double doors for an office under the following headings: weather proofing, security, thermal performance, sound insulation	• Observation • Q&A • Activities
Theory activities **Session 2** (3 hours)	**Learning outcome 1: Install complex doors, bay windows and ironmongery** **Topic 1.1 Types of double doors and ironmongery** • Types of double	**Session 2: Types of double doors: garage, French, rebated, sliding, single and double action** **Activities:** • Review previous session • Tutor to identify the five main classifications of doors: – matchboarded – flush – paneled	• Observation • Q&A • Activities

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Session	Objectives/learning outcomes **The learner will:**	Activities and resources	Assessment
	doors and ironmongery	– glazed – fire • Learners to complete Activity 3 by Identifying the type of door shown, along with the component parts of the door, and state a typical location where it would be hung as well as a suitable opening method • Tutor to outline methods of providing weathering along the meeting stiles and • Learners to complete Activity 4 by sketching one method of providing weathering at the meeting stiles for bead and butt matchboarded double doors and one method for part glazed double doors, labelling the major relevant parts for both sketches. • Tutor to outline glazing requirements of doors and windows • Learners to prepare a few brief notes in small group discussions on the requirements of fire doors and the prevention of fire and smoke, then share these ideas in a whole group discussion • Learners to complete Activity 5 by explaining the reasons for installing fire doors, their marking system and the reasons why intumescent strips and smoke seals are needed. **Resources:** • Activity 3: Showing a drawing of a typical heavy duty framed matchboarded door, with components listed and details of where it found and suitable opening method • Activity 4: Learners to sketch one method of providing weathering at the meeting stiles for bead and butt matchboarded double doors and one method for part glazed double doors, labelling the major relevant parts for both sketches. • Link for glazing requirements: http://www.planningportal.gov.uk/buildingregulations/approveddocuments/partn/ • Activity 5: Learners to explain the reasons for installing fire doors, their marking system and the reasons why intumescent strips and smoke seals are needed.	

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Session	Objectives/learning outcomes **The learner will:**	Activities and resources	Assessment
Theory activities **Session 3** (3 hours)	**Learning outcome 1: Install complex doors, bay windows and ironmongery** **Topic 1.1 Types of double doors and ironmongery** • Types of double doors and ironmongery	**Session 3: Information on types of ironmongery suitable for double doors, garage, French doors, rebated, sliding, single and double action** **Activities:** • Tutor to explain typical ironmongery used with double doors • Learners to complete Activity 6 by identifying suitable ironmongery for the typical door positions outlined. In some cases there could be several options available. • Learners to prepare a few brief notes in small group discussions on the requirements of ironmongery suitable for a variety of double doors and frames, then share these ideas in a whole group discussion **Resources:** • Activity 6: Learners to identify suitable ironmongery for the typical door positions for installing the following: a) large heavy double framed, ledged, braced and boarded doors having a wicket door, b) hardwood double French doors to an external frame, c) sliding and folding doors used on a wardrobe, d) a swinging door used in a public building	• Observation • Q&A • Activities
Theory activities **Session 4** (3 hours)	**Learning outcome 1: Install complex doors, bay windows and ironmongery** **Topic 1.2 Types of windows** • Describe types of windows	**Session 4: Information on types of windows: bay, sliding, traditional casement and storm-proof** **Activities:** • Tutor to identify type of window design and suitable ironmongery: – traditional casement – stormproof (including high performance) – sliding sash – bay • Learners to complete Activity 7 by a) identifying the types of windows shown, b) marking on suitable draft seal positions, c) stating suitable ironmongery for any opening casements and identifying and d) labelling the major component parts	• Observation • Q&A • Activities

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Session	Objectives/learning outcomes **The learner will:**	Activities and resources	Assessment
		• Learners to prepare a few brief notes in small group discussions on the requirements for effective draft sealing around window components and the advantages of high performance timber or uPVC windows. • Learners to complete Activity 8 in small groups, discussing the reasons for effective draft sealing of windows and suitable draft sealing locations and identifying the advantages of using high performance timber and uPVC windows then share sharing ideas in a whole group discussion **Resources:** • Activity 7: Diagrams of the following types of windows for learners to identify and label: a) traditional casement window, b) high performance storm-proof window, c) box frame/sliding sash window • Activity 8: Learners to identify a) the reasons for effective draft sealing of windows, b) suitable locations for brush draft seals on sliding sash windows, c) the main advantages of high performance timber windows and d) the main advantages of uPVC windows over timber windows	
Theory activities **Session 5** (3 hours)	**Learning outcome 1: Install complex doors, bay windows and ironmongery** **Topic 1.3 Hanging doors** • Describe how to hang doors	**Session 5: Information on installation principles for double doors** **Activities:** • Tutor to identify hanging techniques for: – butt hinges – double action hinges – rebated mortice latch/rebate kit – overhead door closers – door selectors • Learners to prepare a few brief notes in small group discussions and complete Activity 9 on the selection requirements for fitting double doors	• Observation • Q&A • Activities

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Session	Objectives/learning outcomes **The learner will:**	Activities and resources	Assessment
		• Learners to complete Activity 10 in small groups, developing a simple fitting guide for the installation of a French door frame. The learners should identify the major fitting principles and outline these in a logical sequence, then present their findings to the group. **Resources:** • Activity 9: Learners to discuss and list a) the main points you should consider when selecting a type of double door set, b) major performance factors to consider for double door openings, c) access considerations for double door sets, d) storage requirements for double doors delivered to site • Activity 10: Leaners to develop a simple fitting guide for the installation of a French door frame • Link to fitting rebate lock https://www.youtube.com/watch?v=TzYZOSs11Pw	
Theory activities **Session 6** (3 hours)	**Learning outcome 1: Install complex doors, bay windows and ironmongery** **Topic 1.3 Hanging doors** • Describe how to hang doors	**Session 6: Information on installation techniques for double doors** **Activities:** • Tutor to identify hanging techniques for double doors using: — swinging doors — floor pivot hinges — sliding doors — folding doors • Learners to complete Activity 11 by preparing a fitting schedule for the installation of double action and single action spring hinges and answering the questions • Learners to complete Activity 12 by answering the questions on sliding, folding and pivoting doors	• Observation • Q&A • Activities

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Session	Objectives/learning outcomes **The learner will:**	Activities and resources	Assessment
		Resources: • Activity 11: Learners to a) outline the principal stages of fitting internal double action spring hinges to a kitchen door, b) draw the correct relationship between the door framework and the door using the above hinges, c) describe how you would finish the meeting edges, d) explain how the spring tension is adjusted • Activity 12: Learners to a) identify two types of folding door pivoting methods, b) draw a typical fitting arrangement through the vertical section of a sliding and pivoting door, c) give three advantages a pivoting door has over a sliding door, and d) identify three ways that the bottom of the door could be controlled • Link to fitting floor pivot hinges: https://youtu.be/L8wdjQ9QXjQ • Link to floor spring hinge: https://youtu.be/AkKwp-U7H5k • Link to folding doors: https://youtu.be/dZ-Ej2DSK7o	
Theory activities **Session 7** (3 hours)	**Learning outcome 1: Install complex doors, bay windows and ironmongery** **Topic 1.4 Fitting bay windows** • Describe the method of fitting bay windows	**Session 7: Information on fitting bay windows** **Activities:** • Tutor to identify fitting techniques for: — bay windows — window boards — architraves — cill • Tutor to outline how to interpret drawings and specifications and identify key considerations when fitting bay windows • Identify correct fixing methods to be used with bay windows and suitable types of finishing techniques • Learners to identify methods for fixing projecting bay window cills and complete Activity 13 by answering the questions on bay windows • Learners to Identify methods of bisecting angles and fixing window boards and complete Activity 14 by answering the questions on bay window board installation • Learners to identify methods for finishing architrave around bay windows	• Observation • Q&A • Activities

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Session	Objectives/learning outcomes **The learner will:**	Activities and resources	Assessment
		Resources: • Activity 13: Learners to a) identify two factors that affect the way that a bay window will be installed, b) identify three factors to be considered when deciding on the type of access equipment to use for working at height, c) identify a method of ensuring the supporting brickwork for the bay window is accurate, d) identify two methods of supporting bay windows, e) with the aid of sketches identify two methods of fixing a segmental window to the walling and f) with the aid of sketches show the cross section of a bay window supported on corbels • Activity 14: Learners to a) state the reasons for installing a built up bay cill bottom and the process for its installation, b) identify two methods of fixing window boards to prevent movement, c) show with the aid of sketches how to find the bisecting angle of a window board for bay windows. • Link to insulated window cill: https://youtu.be/MK_jPRqvvGQ • Link to window architrave: https://youtu.be/j1O3L0RKbuQ	

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Session	Objectives/learning outcomes **The learner will:**	Activities and resources	Assessment
Practical activities **Sessions 8 to 19** (33 hours)	**Learning outcome 1: Install complex doors, bay windows and ironmongery** • Prepare double doors for hanging • Hang double doors and fit ironmongery to given specifications • Follow current environmental and relevant health and safety and fire regulations relating to installing double doors and ironmongery • Prepare bay windows for fitting • Fit bay windows and ironmongery to given specifications • Follow current environmental and relevant health and safety and fire regulations relating	**Sessions 8 to 19: Practical workshop activities following relevant regulations and workshop rules. Prepare and hang double doors, garage, French doors, rebated, sliding, and single and double action, sliding and folding doors (centre-folding and end-folding). Prepare and fit bay windows, including the window board, architraves and projecting cill.** **Activities:** • Select correct tools and materials to prepare doors for hanging • Fit door lining • Hang double doors and fit ironmongery • Follow relevant health and safety guidance • Select correct tools and materials to prepare bay windows for fitting • Fit bay window including making angled fillet • Cut and fit window boards including bisecting angles • Fit gallows brackets and built up bay bottom cills • Follow relevant health and safety guidance **Resources** • Double door specification. Learners to construct a door frame suitable for hanging French doors to the specification below, hang and furnish a pair of rebated doors using suitable ironmongery, fit door stops and fit an overhead door closer. Specification: brick opening size 1020mm; door opening height 1981mm • Double door specification. Learners to construct a door lining suitable for hanging double action swinging doors to the specification below and hang a pair of doors using suitable double action swinging door ironmongery and lining hanging strips. Specification: door opening width to be worked out from the size of the pair of doors supplied; door opening height 1981mm • Sliding door specification. Learners to construct a door lining suitable for hanging sliding doors to the specification below and hang a pair of doors using suitable sliding action gear. Specification: door opening width to be worked out from the size	• Observation • Q&A • Practical activities

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Session	Objectives/learning outcomes **The learner will:**	Activities and resources	Assessment
	to installing bay windows and ironmongery	of the pair of doors supplied; door opening height 1981mm • Bay window specification. Learners to fit the provided bay window into the opening provided by a) cutting and fixing suitable angled fillets to the opening reveal, b) making and fixing suitable gallows brackets for the bay window, c) making and fitting a suitable window board, d) making and fitting a suitable built up bay bottom and trim, e) fitting suitable architrave trim to finish the inside opening. • Individual learning plans: for each session, learners should outline the objectives that they reasonably expect to complete in that session. As the sessions progress, feedback from the previous sessions will guide and focus their future learning aims and objectives. • Selection of timber and timber based material • Portable power tools • Hand tools	
Theory activity **Session 20** (3 hours)	**Learning outcome 1: Install complex doors, bay windows and ironmongery** Review of unit	**Activities:** • Learners to review Unit 303 and complete multiple choice questions **Resources:** • Set of 20 end of unit multiple choice test questions to check learner's understanding of the unit	• Observation • Q&A • End of unit questions

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