

Unit 14: Developing Carpentry Skills

Unit reference number: R/502/3687

QCF level: 1

Credit value: 4

Guided learning hours: 40

Unit aim

This unit is designed to introduce learners to the hand tools, materials, personal protective equipment (PPE) and skills used in carpentry. Learners will have the opportunity to produce a carpentry item.

Unit introduction

Emphasis is placed on the correct selection and safe use of the appropriate tools and equipment required to carry out basic carpentry tasks.

Learners will be given the opportunity to practise the basic techniques used in carpentry, and to use these techniques to construct a carpentry item.

Although learners will work independently when constructing their carpentry item, they will also function as effective members of a team by contributing to the maintenance of a clean and tidy workshop, and by working responsibly with others.

When preparing for work in the construction industry it is important that learners are able to seek and respond to guidance from colleagues and tutors during the learning process. This unit will help learners to develop an understanding of the personal qualities that are valued by employers.

It is recommended that learners will either have successfully completed unit 10 *Health and Safety and Welfare in Construction* before starting this unit, or that they will be studying the unit alongside this one, using an integrated delivery and assessment approach.

Essential resources

Learners will require access to carpentry workbenches, hand tools, materials, fixings and equipment of a nature and standard typical of a proper work environment.

The learning environment must be a safe place of work. Adequate workshop space must be provided for the safe storage and use of timber, as well as adequate washing facilities, access to first aid facilities and storage for PPE.

Learning outcomes, assessment criteria and unit amplification

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

Learning outcomes		Assessment criteria		Unit amplification
1	Know the hand tools used in basic carpentry processes	1.1	List and describe appropriate hand tools to be used in basic carpentry processes	<ul style="list-style-type: none"> □ <i>Hand tools:</i> e.g. steel rule, tri-square, sliding bevel, pencil, marking/mortice gauge, mallet, tenon saw, mitre box, mortice/bevel-edged chisels, nail punch, claw hammer, wheel brace, twist drill bits, screwdrivers, smoothing plane, abrasive paper and block, straight edge, winding sticks, bradawl
2	Know the materials used in basic carpentry processes	2.1	List and describe appropriate materials to be used in basic carpentry processes	<ul style="list-style-type: none"> □ <i>Materials:</i> softwood timber; Polyvinyl Acetate glue (PVA); oval nails; panel pins; wood screws; hinges
3	Know the personal protective equipment (PPE) used in basic carpentry processes	3.1	List and describe appropriate PPE to be used in basic carpentry processes	<ul style="list-style-type: none"> □ <i>Personal protective equipment:</i> e.g. eye protection, safety boots, dust mask, ear defenders, and other personal protective equipment as appropriate □ <i>Basic carpentry processes:</i> plane sawn timber; fixing hinges, cutting mitres, fixing beading/moulding
4	Be able to apply safe working practices to produce a carpentry item	4.1	Select and use hand tools safely to make a carpentry item (photograph display item with hinge(s)) in an acceptable time	<ul style="list-style-type: none"> □ <i>Safe working practices:</i> compliance with advice and guidance given; safe maintenance, use and storage of tools and equipment □ <i>Carpentry item:</i> timber photograph/mirror display item with hinge(s)
5	Be able to work responsibly with others	5.1	Maintain a clean and tidy work environment	<ul style="list-style-type: none"> □ <i>Behaviour:</i> e.g. responsibility, recognition of strengths and skills of self and other team members, cooperation, tidying 'as you go'
		5.2	Work responsibly in the workshop	

Learning outcomes	Assessment criteria		Unit amplification
6 Be able to seek and respond to guidance when working as part of a team	6.1	Follow instructions when working with others	<ul style="list-style-type: none"> □ <i>Attitudes:</i> e.g. enthusiasm; approachability; communication skills e.g. listening, questioning, speaking clearly; following instructions
	6.2	Communicate appropriately with others	

Information for tutors

Delivery

This unit will give learners their first experience of the practical skills associated with the production of a basic carpentry item, together with any job knowledge required to underpin such practical skills. Learners must be given opportunities to develop their knowledge and practical skills through supervised workshop activities, group teaching and demonstrations of the theories, equipment and techniques involved.

Learners will need to practise planing a piece of sawn timber, cutting and fixing a steel hinge, and also cutting beading or moulding using a mitre box. Tutors must demonstrate these skills and techniques. Learners will use the skills and techniques to produce the assessment work (a display item).

Tutors may wish to use regularised timber for learners to plane for the assessment work. The unit content states that learners have to only plane timber and **not** prepare the timber completely.

The most important requirement of the unit is that learners are given opportunities to practise carpentry techniques and procedures. To do this they must be able to recognise and select the tools, materials and PPE needed to work safely. Tutors will therefore need to demonstrate correct selection and use of the appropriate hand tools, materials and PPE. They must also demonstrate the practical carpentry skills required and monitor learners' performance as they practise their skills. Tutors should correct poor practice and commend good practice. Tutors must encourage learners to ask for help and advice when necessary and to maintain a clean and tidy workplace. They should encourage the reliable, positive and enthusiastic response to learning that employers value in prospective employees.

Learners and tutors are encouraged to view the unit as a 'taster', in that it gives the learner an opportunity to experience the type of work involved in carpentry.

Outline learning plan

The outline learning plan has been included in this unit as guidance.

Topic and suggested assignments/activities

Know the hand tools used in basic carpentry tasks.

Whole-class, tutor-led discussion about hand tools. Individual work on tool identification sheets. Tool requisition sheets.

Know the materials used in basic carpentry tasks.

Site visit. Presentation from qualified working carpenter. Trip to timber yard suppliers. Material requisition sheets.

Know the personal protective equipment (PPE) used in performing basic carpentry tasks.

Whole-class, tutor-led discussion about PPE, when and where it is necessary and how it works. Individual work on PPE identification sheets. PPE requisition sheets. Learners to be provided with opportunities to select and wear the full range of PPE used in carpentry.

Topic and suggested assignments/activities

Practise the processes used to produce basic carpentry item.

Practical demonstration of how to keep individual work areas tidy. The hand-to-eye motor skills associated with carpentry are best taught by the tutor demonstrating the skills required, followed by the learners practising the skills. The tutor should monitor the learners as they practise their skills and provide guidance and advice, and correction or praise, as appropriate.

Be able to apply safe working practices to produce a carpentry item.

Assessment. Two hours to produce the paperwork required in the form of requisition forms/tool identification sheets. Four hours to produce carpentry item. Practical assessment evidence could be a photograph and a learner's description of what they have done.

Be able to work responsibly with others.

Use of health and safety videos to demonstrate the dangers of a dirty and untidy workplace. Discussion of important role played by on-site personnel behaving in a cooperative and responsible manner. Constant encouragement from tutors to 'tidy as you go' during practical carpentry workshop sessions.

Be able to seek and respond to guidance when working as part of a team.

Tutors should encourage learners to ask questions about their work. This could be prompted by tutors asking learners to explain what they are doing, and why they are doing it, or to name a tool or an item of PPE as they work. Learners should be aware that their attitude, and the nature of their responses to any advice provided, will comprise part of the evidence required to achieve the unit. This requires no formal allocation of time and should occur during practice and assessment.

Assessment

The evidence can be provided by a single practical assignment covering all of the assessment criteria for the unit. Achievement of assessment criteria should be evidenced through vocationally related practical experiences with tasks specifically designed with the assessment criteria in mind. Many of the assessment criteria will need to be assessed directly by the tutor during practical activities. Where this approach is used, suitable evidence from guided activities would require observation records and/or witness statements plus photographs of the completed work.

For 1.1, learners must list and describe the hand tools to be used in the practical task. This will be evidenced most clearly by completion of appropriate requisition orders or tool identification sheets.

For 2.1, learners must list and describe the materials to be used in the practical task. This will be evidenced most clearly by completion of appropriate requisition orders or materials identification sheets.

For 3.1, learners must list and describe the items of PPE to be used in the practical task. This will be evidenced most clearly by completion of appropriate requisition orders or PPE identification sheets.

For 4.1, learners must be able to produce a display carpentry item. It is anticipated that considerable guidance may need to be provided to learners at this level. There is no requirement for the work to comply with specific tolerances, or to demonstrate a professional standard. It is sufficient that the task has been

completed. Photographs, observation records and witness statements could be provided as evidence. Learners need to follow safe working practices.

For 5.1 and 5.2, learners should work as part of a team to create and maintain a clean and tidy work environment. They must also work responsibly when producing the basic carpentry item in the workshop. The evidence could take the form of a witness statement.

For 6.1 and 6.2, learners must be able to seek guidance from tutors and other experienced persons. Learners must follow instructions and communicate appropriately with other learners and with their tutors and/or instructors. The evidence could take the form of a witness statement.

Suggested resources

Books

Brett P – *Wood Occupations: Level 1* (Nelson Thornes, 2007) ISBN 9780748781836

Porter B – *Carpentry and Joinery Volume 1* (Butterworth-Heinemann, 2001)
ISBN 9780750651356

Topliss S and Murray-Smith J – *BTEC Entry 3/Level 1 Construction Student Book*
(Pearson, 2010) ISBN 9781846909207

Websites

www.geoffswoodwork.co.uk

www.getwoodworking.com

www.hse.gov.uk