

National Unit Specification: general information

UNIT Working with Wood: Garden Furniture and Accessories
(Intermediate 1)

NUMBER D6DF 10

COURSE

SUMMARY

This unit will be suitable for candidates having limited experience of working with woodworking hand tools and associated materials. The outcomes require the candidate to select materials, set out elementary woodworking joints and projects, and use woodworking hand tools to manufacture a range of elementary woodworking joints and small projects. Candidates who achieve this unit should feel confident in progressing to other units in working with wood to further develop their skills.

OUTCOMES

- 1 Select materials and ironmongery for specific use.
- 2 Make a range of woodworking joints.
- 3 Manufacture a wooden product.

RECOMMENDED ENTRY

Candidates enrolling for this unit do not need any prior experience although it would be an advantage to have gained unit D6DE 10 Working with Wood: An Introduction.

CREDIT VALUE

1 Credit at Intermediate 1.

Administrative Information

Superclass: WK

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CORE SKILLS

Information on the automatic certification of any core skills in this unit is published in *Automatic Certification of Core Skills in National Qualifications* (SQA, 1999).

National Unit Specification: statement of standards

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Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

Note on range for the unit

The range statement for this unit is fully expressed within the performance criteria.

Current health and safety legislation must be complied with throughout.

OUTCOME 1

Select materials and ironmongery for specific use.

Performance criteria

- a) The identification of woods and sheet materials is correct.
- b) The selection of woods and manufactured sheet material for specific use is appropriate.
- c) The identification of jointing aids and ironmongery is correct.
- d) The selection of jointing aids and ironmongery for specific use is appropriate.

Evidence requirements

Please refer to *Evidence requirements for the unit* at the end of the Statement of Standards.

OUTCOME 2

Make a range of woodworking joints.

Performance criteria

- a) Sawn wood is converted to dressed wood within specified tolerances.
- b) Joints are set out correctly within specified tolerances.
- c) Joints are made within specified tolerances.
- d) Work methods and activities comply with current health and safety regulations.

Evidence requirements

Please refer to *Evidence requirements for the unit* at the end of the Statement of Standards

National Unit Specification: statement of standards (cont)

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OUTCOME 3

Manufacture a wooden product.

Performance criteria

- a) The product is set out correctly in accordance with a workshop drawing.
- b) Manufacturing processes are in accordance with recognised practice.
- c) The manufactured product is in accordance with the specification.
- d) Work methods and activities comply with current health and safety regulations.

Evidence requirements

Please refer to *Evidence requirements for the unit* at the end of the Statement of Standards.

EVIDENCE REQUIREMENTS FOR THE UNIT

Outcome 1

Evidence of actual performance is needed to show the candidate can, from physical examination of enumerated samples, identify and select for specific use two woods, two sheet materials, two jointing aids and two items of ironmongery and record the identifications and selections.

Outcome 2

Evidence of actual performance is needed to show the candidate can make, from sawn wood having minimum dimensions of 50mm x 25mm a tee halving joint and either a stub mortise and tenon joint or a bridle joint plus from dressed wood having minimum dimensions of 70mm x 15mm a butt corner joint held square with a hardboard gusset plate. Both components in each joint must have a minimum length of 100mm. All activities must be carried out in a safe and organised manner.

Outcome 3

Evidence of actual performance is needed to show the candidate can set out and manufacture a wooden product in a safe and organised manner. The product must include all of the following operations: measuring; setting out; planing; sawing; rebating; grooving; chamfering; chiselling; boring or drilling; screwing; nailing; cramping; assembling.

National Unit Specification: support notes

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This part of the unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

Corresponding to outcomes 1 to 3:

Outcome 1

This outcome covers the identification, selection and use, of woods, sheet materials, jointing aids and ironmongery when the candidate is likely to be exposed to the majority of the following:

woods and sheet materials - white pine; red pine; red cedar; larch; oak; teak; afrormosia; hardboard; interior plywood; exterior plywood; particle board; roofing felt; sheet glass; polythene.

jointing aids and ironmongery - wire nails; oval brad nails; lost head nails; felt nails; panel pins; woodscrews; coach bolts; timber dowels; metal dowels; angle brackets; hinges; slip bolts; turnbuttons.

Outcome 2

This outcome covers the manufacture of three joints commonly used in garden products and accessories. Emphasis should focus on the importance of working accurately and thereafter on, proper stance, posture and positioning of feet and hands in order to minimise the risk of accidents. The use of holding devices such as the woodworking bench vice and cramps should be fully utilised. A workshop drawing must be available for each joint.

Outcome 3

This outcome covers the manufacture of a product commonly associated with a garden. Products exposed to the weather would normally be made of durable materials, whereas products usually kept in a garden shed or garage such as a tool rack could be made of non-durable materials. To meet the demands of this outcome it may be necessary to manufacture more than one product to ensure full coverage of the operations listed in the evidence requirements. Suggested projects are: garden seat or bench; greenhouse bench; seed tray; cold frame; plant display frame; window box; gate; picnic table; fencing; trellis; tool rack; tool cupboard. A workshop drawing must be available for each project.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Emphasis throughout this unit should focus on treating tools and equipment with great care and attention whilst working accurately in setting out and during tool applications. The tutor/trainer should fully explain how cutting tools lose their sharpness and therefore their efficiency. Recognised working practices should be fully explained and demonstrated prior to the candidate being exposed to the 'hands on' experience. These recognised working practices should include setting out with a sharp hard pencil when the use of pens should not be tolerated; marking in components in pairs; use of face and edge marks; material retention during tool application; use of workshop equipment; correct posture including the positioning of the feet and hands; maintaining a clean and tidy workspace; working in a safe and organised manner. Numerous projects should be developed when the candidate will be encouraged to select a project. This situation will provide an environment

National Unit Specification: support notes (cont)

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where the candidate will experience direct learning from his or her own project and passive learning from projects being undertaken by others.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Centres may use the Instruments of Assessment which they consider to be the most appropriate. Examples are provided below:

Outcome 1

Practical Exercise and Objective Questions

The candidate will be provided with three enumerated samples for each of woods, sheet materials, jointing aids and ironmongery. After physical examination of the twelve samples the candidate should record, for each sample, its identification and an appropriate use.

Satisfactory performance in this outcome will be based on the candidate correctly identifying at least, two woods, two sheet materials, two jointing aids and two items of ironmongery and thereafter matching each of the above to an appropriate use. A checklist will be developed to record the evidence.

Outcome 2

Practical Exercise

The candidate will be presented with the requisite materials and a working drawing for each joint to be made showing all required dimensions, joint construction and acceptable tolerances. Acceptable tolerances are shown in the specification:

SPECIFICATION

Converts sawn wood to dressed wood with hand plane to size within 3mm	-	E
Marks components of joint with face and edge marks in correct orientation	-	D
Draws in joint, with pencil, to sizes shown on workshop drawing within 1mm	-	E
Completes joints:		
Overall dimensions within 3mm	-	E
Joints to be securely fitted with no gaps exceeding 2mm	-	E
Square to within 3mm in 100mm for angle joints	-	D
Surfaces dressed without plane marks	-	D
Ends of components treated with small chamfer	-	D
No visible excess adhesive	-	D

Satisfactory performance in this outcome will be based on the candidate meeting the performance criteria, including gaining all essential items [E] plus at least three desirable items [D] in the above specification.

National Unit Specification: support notes (cont)

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A checklist will be developed to record the evidence.

Outcome 3

Practical Exercise

The candidate will be presented with the requisite materials and a workshop drawing showing all required dimensions, joint construction and acceptable tolerances. Wood will be machine dressed. Acceptable tolerances are shown in the specification

SPECIFICATION

Marks components of project with face and edge marks in correct orientation - D

Draws in project, with pencil, to sizes shown on the workshop drawing within 1mm - E

Completes project:

Overall dimensions within 5mm - D

Joints to be securely fitted with no gaps exceeding 2mm - D

Square to within 5mm per 300mm run - D

Surfaces dressed without plane marks - D

No visible excess adhesive - D

Fulfils its design function - E

Satisfactory performance in this outcome will be based on the candidate meeting the performance criteria, including gaining both essential items [E] plus at least four desirable items [D] in the above specification.

A checklist will be developed to record the evidence.

SPECIAL NEEDS

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering special alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment and Certification Arrangements for Candidates with Special Needs/Candidates whose First Language is not English* (SQA, 1998).