



National Unit specification: general information

Unit title: Furniture: Timber Frame

Unit code: H3LK 11

Superclass: WK

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Version: 02

Summary

This Unit is designed to allow candidates to develop knowledge and skills required to manufacture furniture frameworks, using different joints. They will develop their understanding of how furniture frames provide structural strength and then apply that knowledge in the planning and manufacture of a timber frame. The Unit will normally be delivered through workshop activity supported by classroom sessions.

It is envisaged that candidates successfully completing this Unit will be able to prepare for employment and/or progress to further studies in the Furniture Making Industry.

Outcomes

- 1 Describe the structural requirements of furniture timber frameworks.
- 2 Plan the manufacture of a framed item of furniture.
- 3 Produce a furniture framework from a manufacturing schedule.

Recommended entry

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following, or equivalent:

- ◆ Machine Woodworking
- ◆ Furniture: Workshop Practice

National Unit specification: general information (cont)

Unit title: Furniture: Timber Frame

Credit points and level

1 National Unit credit at SCQF level 5: (6 SCQF credit points at SCQF level 5*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Core Skills

Achievement of this Unit gives automatic certification of the following Core Skills component:

Complete Core Skill	None
Core Skill component	Critical Thinking at SCQF level 4 Planning and Organising at SCQF level 4

There are also opportunities to develop aspects of Core Skills which are highlighted in the Support Notes of this Unit specification.

National Unit specification: statement of standards

Unit title: Furniture: Timber Frame

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 SQA.

Outcome 1

Describe the structural requirements of furniture timber frameworks.

Performance Criteria

- (a) Identify the basic construction details of tables and chairs.
- (b) Describe the principles involved in establishing the rigidity of a frame.
- (c) Describe the difference between adhesive and mechanical strength.
- (d) Describe which joints rely on the above properties.

Outcome 2

Plan the manufacture of a framed item of furniture.

Performance Criteria

- (a) Prepare working drawings for a specified item of furniture.
- (b) Produce a cutting list for a specified item of furniture.
- (c) Produce a manufacturing schedule for a specified item of furniture.

Outcome 3

Produce a furniture framework from a manufacturing schedule.

Performance Criteria

- (a) Select appropriate joints.
- (b) Select appropriate method of construction.
- (c) Use a range of woodworking machines to form joints.
- (d) Construct a frame using correct procedures, material and equipment in an agreed time.
- (e) Ensure all safety procedures and PPE are applied at all times.
- (f) Behave in a manner appropriate to the working environment.
- (g) Use machinery and tools safely at all times.

National Unit specification: statement of standards (cont)

Unit title: Furniture: Timber Frame

Evidence Requirements for this Unit

Evidence is required to demonstrate that the candidates have achieved this Unit to the standard specified in all the Outcomes and Performance Criteria. All working practices must be in line with relevant and current Health and Safety legislation and regulations.

Outcome 1

Written and or recorded oral evidence is required for Outcome 1 which demonstrates that the candidate can describe the terminology, function of components and forms of construction associated with timber frame construction. They should identify the basic construction details of a minimum of four different tables or chairs and describe the properties (adhesive or mechanical and dimensions) for a minimum of six different joints. In addition the candidate should provide a brief description of the principles used to ensure the rigidity of a timber frame and the difference between adhesive and mechanical strength.

Outcome 2

For Outcome 2 fully annotated graphical evidence showing components and their positions must be drawn to current legislative requirements. Candidates must also produce a cutting list and produce a manufacturing schedule showing sequence of operation.

Outcome 3

Evidence of actual performance is required for Outcome 3 to show that the candidate can set up and use a minimum of four machines to safely produce the component parts accurately, ensuring all guards and fences are correctly set. The candidate must ensure that functional dimensions are within agreed tolerances and quality is compatible with an agreed exemplar. They should also follow a sequence of assembly, use cramping equipment correctly, ensure frame is square and out of twist and achieve a suitable standard of cleanliness.

If this Unit is delivered as part of the NC in Furniture at SCQF level 5 there may be opportunities to integrate the assessment of the practical aspects of this Unit with other practical Units within the award.

National Unit specification: support notes

Unit title: Furniture: Timber Frame

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

This Unit has been developed as a mandatory Unit in the Furniture National Certificate at SCQF level 5.

The successful completion of this Unit will provide candidates with the required underpinning knowledge and skills relating to setting up woodworking machinery required to manufacture furniture components. The candidate will also gain experience in working to given sizes and tolerances associated in the production of furniture drawings and cutting lists. Candidates will also obtain knowledge of current safety regulations and legislation relating to the use of woodworking machinery and the requirement of the use of PPE.

This Unit should be offered to candidates from the furniture and related services industries. The skills and knowledge and understanding are transferable within different working environments but the Unit is primarily aimed at candidates whose normal place of work would be a furniture workshop, or similar environment.

This Unit deals with the theory and practice associated in producing a timber frame component.

Guidance on learning and teaching approaches for this Unit

The terms used for timber frame construction techniques should be integrated to the practical assessments as it is undertaken, and the basic principles of such explained as the work piece is being built. This teaching approach should ensure the candidate is acquiring the underpinning knowledge required for the Unit.

The candidate should be introduced to the relevant machinery, tooling, tools and equipment used in the manufacture of timber frames through the use of PowerPoint presentations, online material, DVD, VLE, reference books, group discussions and classroom exercises.

The use of each woodworking machine and relevant tools should be demonstrated thoroughly and safe working practises observed at all times.

The teaching approach should ensure that the candidate is receiving the underpinning knowledge to complete this Unit successfully.

National Unit specification: support notes

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Guidance on approaches to assessment for this Unit

Outcome 1

Evidence for this Outcome could be obtained by short answer question paper under closed-book supervised conditions.

Outcome 2

Evidence for this Outcome could be obtained by a practical activity in the production of a scale drawing, cutting list and manufacturing schedule. This Outcome can be carried out in the workshop environment.

Outcome 3

Evidence for this Outcome could be gathered through the use of an observation checklist recording the candidate's progress and ensuring all health and safety procedures have been followed correctly at all times.

If this Unit is delivered as part of the NC in Furniture at SCQF level 5 there may be opportunities to integrate the assessment of this Unit with other practical Units within the award.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

Opportunities for developing Core Skills

While there is no automatic certification of Core Skills or Core Skills components in this Unit, there may be opportunities to develop the Core Skills of *Problem Solving* and *Numeracy* at SCQF level 4 through the practical components of this Unit.

This Unit has the Critical Thinking and Planning and Organising components of Problem Solving embedded in it. This means that when candidates achieve the Unit, their Core Skills profile will also be updated to show they have achieved Critical Thinking at SCQF level 4 and Planning and Organising at SCQF level 4.

Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements

History of changes to Unit

Version	Description of change	Date
02	Core Skills Components Critical Thinking and Planning and Organising at SCQF level 4 embedded.	22/04/2013

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