



Practical Woodworking Course Assessment Information

To achieve the National 4 PWW award, learners must pass all the required units, including the Added Value Unit shown below. The N4 courses are awarded a Pass or Fail.

N4 Tasks	Pass/Fail
Carcase Model	
Flat Frame Model	
Machining and Turning	
Added Value Unit (AVU)	

N4 Tolerances

The standards and tolerances applicable to the product are as follows:

Operation	Tolerance
Individual components	
Planing (or similar)	+/- 2mm
Marking out and cutting	+/- 2mm
Machine/power tool tasks: <ul style="list-style-type: none"> ◆ vertical drilling ◆ sanding to a line ◆ drilling to given line position 	+/- 2mm
Joint gaps	<=2mm
Overall sizes	+/- 5mm

Skills, knowledge and understanding

Full skills, knowledge and understanding for the Course are given in the *Added Value Unit Specification*. A broad overview of the mandatory subject skills, knowledge and understanding that will be assessed in the Course is given in this section. These include:

- ◆ using, with guidance, a range of woodworking tools, equipment and materials safely and correctly for straightforward and familiar woodworking tasks
- ◆ reading and interpreting simple drawings and diagrams in familiar contexts
- ◆ measuring and marking out timber sections and sheet materials in preparation for straightforward cutting and shaping tasks
- ◆ practical creativity in the context of simple and familiar woodworking tasks
- ◆ following, with guidance, given stages of a practical problem-solving approach to woodworking tasks
- ◆ applying knowledge and understanding of safe working practices in a workshop environment
- ◆ knowledge of the basic properties and uses of common woodworking materials
- ◆ knowledge of sustainability issues in a practical woodworking context

Skill	How to develop
2 Numeracy	
2.2 Money, time and measurement	<ul style="list-style-type: none"> ◆ measuring and marking out materials in accordance with working drawings ◆ interpreting and calculating dimensions and scale in drawings/diagrams/orthographic projections and applying them to work pieces ◆ checking the accuracy of completed components and assemblies against drawings and cutting lists ◆ manufacturing items to strict measurements of tolerances and accuracy ◆ managing time to achieve set tasks and goals ◆ discussing costs in the context of sustainability and recycling
4 Employability, enterprise and citizenship	
4.3 Working with others	<ul style="list-style-type: none"> ◆ sharing tools, equipment and materials with others during workshop practice and working together to balance individual tasks and time ◆ participating in group work ◆ assisting other candidates to carry out tasks
5 Thinking skills	
5.3 Applying	<ul style="list-style-type: none"> ◆ learning new techniques and processes and applying them in practical tasks ◆ planning and organising tools, equipment and materials in preparation for a practical activity ◆ applying practical skills to solve a problem in a drawing or specification
5.5 Creating	<ul style="list-style-type: none"> ◆ creating assemblies based on drawings and diagrams and applying individual interpretation where necessary

Practical activity	
Skills	Candidates are required to demonstrate the ability to:
Measuring and marking out	Use the measuring and marking out tools listed below: <ul style="list-style-type: none"> • steel rule
Reading and interpreting drawings and documents	Read and extract relevant information from: <ul style="list-style-type: none"> • working drawings, pictorial drawings, diagrams, cutting lists
Materials	Work safely with natural and manmade materials.
Bench work	Safely use tools listed below: <ul style="list-style-type: none"> • bench vice • saws • chisels • mallet • hammers • pincers
Surface preparation and finishing	Carry out preparation to natural wood and manmade boards before applying a finish. Apply finishes to natural wood and manmade boards.

Practical activity	
Skills	Candidates are required to demonstrate the ability to:
	<ul style="list-style-type: none"> • planes • spoke shave • hand drills and braces • screwdrivers • sawing board/bench hook • hand router • bradawl • nail punch
Cramping	Accurately and safely use cramping devices.

Flat-frame jointing techniques	Safely manufacture flat-frame joints listed below: <ul style="list-style-type: none"> • corner: butt, mitre, dowel, halving, bride, haunched mortise and tenon • T joints: butt, dowel, halving, bride, stub and through mortise and tenon • cross halving • dovetail halving
Carcase jointing techniques	Safely manufacture carcase construction joints listed below: <ul style="list-style-type: none"> • butt • corner rebate • through housing • stopped housing • dowel

Practical activity	
Skills	Candidates are required to demonstrate the ability to:
Mechanical fixings and adhesives	Safely use correct mechanical fixings: <ul style="list-style-type: none"> • nails • proprietary flat-frame fixings • proprietary carcase construction fixings • knock down fixings <p>Safely use wood adhesives in a workshop environment.</p>
Use and maintenance of machine and power tools	Safely use the machines and power tools listed below. Machines: <ul style="list-style-type: none"> • woodturning lathe • belt sander • disc sander • pedestal/pillar drill • mortise machine <p>Power tools:</p> <ul style="list-style-type: none"> • drills • sanders • cordless screwdrivers • jig saw
Care and maintenance of tools and machinery, and safe working practices	Complete a log book detailing evidence of good and safe working practices covering the following: <ul style="list-style-type: none"> • care and maintenance of tools and equipment • reporting faults and fault reporting systems • general condition before, during and after use • position and condition of guards • position and security of cutting tools on machine tools • use of personal protective equipment • setting a plane • honing a chisel • honing a plane iron
Sustainability and recycling	Understand and follow workshop recycling practices and processes.

Developing the Young Workforce (DYW) Skills covered in the N5 Practical Woodworking course:

Practical Woodworking: Flat-frame Construction (National 4)

This Unit helps learners develop skills in the use of woodworking tools and in the preparation and production of basic flat-frame woodworking joints and assemblies. Learners will learn to read and follow simple woodworking drawings or diagrams.

Practical Woodworking: Carcase Construction (National 4)

This Unit helps learners develop skills in the preparation and production of basic woodworking joints and assemblies suitable for use in carcase construction. This may include working with manufactured board or with frames and panels. The Unit includes the use of simple working drawings or diagrams.

Practical Woodworking: Machining and Finishing (National 4)

This Unit helps learners develop skills in using common machine and power tools. It also helps learners develop skills in a variety of simple woodworking surface preparations and finishing techniques.

In each of the three Units above, learners will develop an appreciation of safe working practices in a workshop environment. They will also gain knowledge and understanding of sustainability issues and good practice in recycling in a practical woodworking context.

The structure of the Course allows learners to cover fundamental woodworking skills in a progressive fashion. Each Unit covers a set of new woodworking skills. All of the Units include skills in measuring, marking out, cutting and jointing techniques.

Added Value Unit: Making a Finished Product from Wood (National 4)

This Unit requires learners to draw on and extend their range of practical woodworking experiences and skills in order to produce an effective overall response to the task. The practical activity will be sufficiently open and flexible to allow for personalisation and choice.