

National 5 Coursework Assessment Task



National 5 Practical Woodworking Practical activity Assessment task: coat rack (two-peg or four-peg)

Specimen – valid from session 2017-18 and until further notice.

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Introduction

This document contains marking instructions and instructions for candidates for the National 5 Practical Woodworking practical activity. It must be read in conjunction with the course specification.

This practical activity has 70 marks out of a total of 130 marks available for the course assessment.

This is one of two course assessment components. The other component is a question paper.

Instructions for teachers and lecturers

This is a specimen assessment task.

SQA will publish a new assessment task on the secure website each academic year. The task is valid for that year only. Once complete, the practical activity is marked internally and marks are submitted to SQA.

The practical activity is issued in two stages:

- Stage1: An initial simplified drawing, with a cutting list of the materials required. No details of the construction/joint type on the drawing are provided at this time, only the overall sizes to assist with preparing the materials.
- Stage 2: The complete working drawings for the practical activity, giving the construction/joint type and detailed dimensions for the component parts.

Although the practical activity is conducted under some supervision and control, a high degree of supervision is required for health and safety.

The practical activity must be carried out:

- without interruption by periods of learning and teaching
- in a workshop environment
- in time to meet the mark submission date set by SQA
- on an individual basis by the candidate (ie no group work is permitted)
- under supervision to ensure that work presented is the candidate's own
- under supervision to ensure a safe and controlled environment

Time

This practical activity is carried out over a period of time, starting at an appropriate point in the course, once all content has been delivered.

Resources

The practical activity is undertaken in open-book conditions and, as such, candidates can have access to learning and teaching materials, the internet, notes, exemplar materials, resources on classroom walls or anything similar while it is being undertaken.

The practical activity will include instructions for teachers, lecturers and candidates; this will detail any materials that they will need.

Reasonable assistance

Candidates are expected to progress through each stage of the practical activity independently, having acquired the skills earlier in the course. Assessors will only intervene during the practical activity to ensure the safe running of the workshop environment. Where this happens, it must be recorded and reflected in the marks awarded, in line with the marking instructions.

The practical activity is designed to discriminate between candidates. Once the practical activity has been completed, the product cannot be returned to a candidate for further work.

Reasonable assistance may be provided to ensure that:

- candidates have all the materials and equipment required to complete the practical activity
- candidates understand the information outlined in the instructions
- candidates' ongoing work is stored and distributed securely
- tools/equipment required by candidates are made available

Assessors must not give instructions on how to carry out the practical activity or complete an entry in a log book. They must not help to manufacture joints or component parts, or assist with setting up machinery or hand tools to carry out a process.

Evidence

Evidence for the assessment task includes:

- the completed product (and any candidate-created jigs)
- the completed log book
- a record of any intervention relating to independence of work
- a record of any intervention relating to safe working

All candidate evidence must be internally assessed.

Alteration or adaptation

The practical activity must not be altered, adapted or modified in any way (this includes moving the content of the practical activity into a different format or re-drawing/producing additional working drawings). The only exception to this is the thickness of the material used.

As it is sometimes difficult for centres to obtain specific thicknesses of material, teachers and lecturers are allowed to adjust the thicknesses relative to their situation. Any changes are subject to professional judgement, ie a 15mm thickness could be changed to 18mm or 12mm; however changing it to 5mm would not be appropriate. Note: if centres do adjust the thickness, they **must** adjust the working drawings to reflect this.

Submission

Internally assessed marks must be submitted in line with SQA submission dates.

Volume

One completed log book and one completed product is required for each candidate. The log book is provided to centres as a separate file.

Specific instructions for teachers and lecturers

Teachers and lecturers must ensure that these specific instructions are followed. Candidates must be made aware of the assessment conditions and know what they should do to complete the practical activity.

Prior to starting the practical activity, teachers and lecturers must supply candidates with the unaltered working drawings provided by SQA, a log book, and the materials required to carry out the practical activity.

Once the product is made, candidates must prepare it for a finish to be applied. The finish must be appropriate to the practical activity; however, any finish applied prior to external verification must not affect the verifier's ability to make judgements on assessor decisions.

While working on the practical activity, candidates must adhere to recognised safe working practices as well as those stipulated within their centre.

Specimen practical activity: coat rack

The coat rack can be made as either a two-peg or a four-peg version.

The panel of the door may be fitted into a groove cut in the sides and rails using a plough plane, or fitted into a rebate and beading used to hold it in place.

The door is designed to be hinged. An allowance of 1mm has been made to allow for flush hinges to be used; other hinge types, eg butt hinges, will require a recess to be cut in the door frame to accommodate the hinge.

Hinging is not assessed in this practical activity, so candidates may receive direct support and guidance to attach hinges to the coat rack. Marks will not be awarded or lost for any process relating to hinging.

Recording documentation

The following document must be used by assessors to record the marks awarded to candidates.

National 5 Practical Woodworking: practical activity

Assessment record

Candidate name: _____Class/group: _____

Candidate number: _____Centre: _____

| Practical activity title: | | | |
|--|--------------|---------------|-------------------------------|
| Section | Max marks | Mark given | Assessor comments/explanation |
| Log book: machine care and maintenance | 5 | | |
| tool care and maintenance | 5 | | |
| safe working procedures | 5 | | |
| Flat-frame construction: measuring and marking cutting flat-frame | 4 | | |
| joints | 5 | | |
| independence of work | 3 | | |
| Carcase construction: measuring and marking cutting carcase joints | 4 | | |
| cutting carcase jointsindependence of work | 5 3 | | |
| Machining and turnery: dimension tolerances quality of turnery independence of work | 4 4 3 | | |
| Finishing: | | | |
| preparation | 4 | | |
| application of finish independence of work | 3 | | |
| Overall assembly: quality of assembly assembly tolerances | 5 5 | | |
| Total marks | 70 | | |

Please use the space provided below for any additional comments to support your assessment judgement. You may attach additional pages if required.

| Assessor | Data | |
|-----------|------|--|
| signature | Date | |

Marking instructions

The following marking instructions are applicable to this specimen assessment task and are helpful for those preparing candidates for course assessment.

Candidate evidence is internally assessed in line with SQA's marking instructions. Marking instructions are provided along with the annual practical activity assessment tasks.

General marking principles

This information is provided to help you understand the general principles that must be applied when marking candidate responses in this practical activity. These principles must be read in conjunction with the detailed/specific marking instructions, which identify the key features required in candidate responses.

- a Marks for each candidate response must **always** be assigned in line with these general marking principles and the detailed marking instructions for this assessment.
- b Marking should always be positive. This means that, for each candidate response, marks are accumulated for the demonstration of relevant skills, knowledge and understanding: they are not deducted from a maximum on the basis of errors or omissions.

Detailed marking instructions

Log book

The log book must be completed by all candidates and is worth a total of 15 marks. The log book consists of three areas, each worth 5 marks:

- machine/power tool care and maintenance
- tool care and maintenance
- safe working procedures

Machine care and maintenance (up to 5 marks)

Machine care and maintenance focuses on the procedure checks that are carried out on machine and power tools prior to, and following, their use. It also covers the procedures involved in setting up machinery to carry out specific tasks.

Each procedure check must cover all areas associated with that procedure. Checks must be carried out on machinery/power tools to an acceptable standard and accurately recorded in the log book.

One mark is available for each procedure check carried out, up to a maximum of 5 marks.

Example procedure checks are given below:

- setting up the pedestal drill for safe use (1 mark)
- setting up a blank on the woodturning lathe for safe use (1 mark)
- preparing the orbital sander for safe use (1 mark)
- preparing the jig saw for safe use (1 mark)
- preparing the cordless drill for safe use (1 mark)

These examples are not prescriptive. Centres are free to select any appropriate procedure checks on machinery/power tools that they carry out.

Tool care and maintenance (up to 5 marks)

Tool care and maintenance focuses on the procedures of repairing and setting of various hand tools. Each procedure must specify the issue, whether there is a repair required or the tool has to be set. These scenarios are open to centres to devise, but where possible, they should sit alongside learning and teaching.

Procedures must be carried out on tools to an acceptable standard and accurately recorded in log book.

One mark is available for each procedure carried out, up to a maximum of 5 marks.

Example procedures are given below:

- honing a plane iron (1 mark)*
- honing a chisel (1 mark)
- setting a jack/smoothing plane (1 mark)
- setting a specialist tool, eg router plane (1 mark)
- storing tools (1 mark)

*Important note: one procedure **must** be honing a cutting edge on a plane iron or a chisel.

Safe working procedures (up to 5 marks)

Safe working procedures focuses on candidates' behaviour within a workshop, and their ability to adhere to general and centre-specific health and safety procedures and rules.

Assessors must note any interventions or reminders during the practical activity, and apply marks as outlined in the marking instructions.

These interventions or reminders could include:

- stopping unsafe use of a machine/power tool
- preventing unsafe use of hand tools
- unacceptable behaviour
- any breach of health and safety regulations
- any breach of the centre's procedures or rules

| Candidate has adhered to safe working procedures, without any need for reminders or interventions | 5 |
|---|----------|
| Candidate has adhered to safe working procedures, with one reminder or intervention | 4 |
| Candidate has adhered to safe working procedures, with two reminders or interventions | 3 |
| Candidate has adhered to safe working procedures, with three or four reminders or interventions | 2 |
| Candidate has adhered to safe working procedures, with regular reminders or interventions | 1 |
| Candidate has adhered to safe working procedures, with constant reminders or interventions | 0 |
| Total marks available | 15 marks |

Flat-frame construction

| Measuring and marking (up to 4 marks) | |
|---|----------------|
| When making assessment judgements, assessors must consider how the co of the flat-frame joints were measured and marked. | omponent parts |
| Accurate use of measuring and marking tools has ensured that all instances of marking for flat-frame are within tolerance | 4 |
| Accurate use of measuring and marking tools has ensured that most instances of marking for flat-frame are within tolerance | 3 |
| Accurate use of measuring and marking tools has ensured that some instances of marking for flat-frame are within tolerance | 2 |
| Accurate use of measuring and marking tools has ensured that few instances of marking for flat-frame are within tolerance | 1 |
| There is no evidence of accurate use of measuring and marking tools | 0 |
| Cutting flat-frame joints (up to 5 marks) | |
| When making assessment judgements, assessors must consider how the co of flat-frame joints were cut. | omponent parts |
| Accurate use of cutting tools has ensured that all cutting is within tolerance | 5 |
| Accurate use of cutting tools has ensured that almost all cutting is within tolerance, with the exception of one instance | 4 |
| Accurate use of cutting tools has ensured that most cutting is within tolerance | 3 |
| Accurate use of cutting tools has ensured that some cutting within tolerance | 2 |
| Accurate use of cutting tools has ensured that few instances of cutting are within tolerance | 1 |
| There is no evidence of accurate use of cutting tools | 0 |
| Independence of work (up to 3 marks) | |
| For guidance on reasonable assistance, assessors must refer to the 'Instru- teachers and lecturers' section. | ctions for |
| In general, additional assistance is where assessors have to demonstrate or procedure. | or describe a |
| All flat-frame work has been carried out independently, with no additional assistance required | 3 |
| Flat-frame work has been carried out independently, with one or two instances of assistance required | 2 |
| Flat-frame work has been carried out, with regular assistance required | 1 |
| Flat-frame work has been carried out, with constant assistance required | 0 |
| Total marks available | 12 marks |

Carcase construction

| Measuring and marking (up to 4 marks) | |
|--|---------------|
| When making assessment judgements, assessors must consider how the co of carcase construction were measured and marked. | mponent parts |
| Accurate use of measuring and marking tools has ensured that all instances of marking for carcase construction are within tolerance | 4 |
| Accurate use of measuring and marking tools has ensured that most instances of marking for carcase construction are within tolerance | 3 |
| Accurate use of measuring and marking tools has ensured that some instances of marking for carcase construction are within tolerance | 2 |
| Accurate use of measuring and marking tools has ensured that few instances of marking for carcase construction are within tolerance | 1 |
| There is no evidence of accurate use of measuring and marking tools for carcase construction | 0 |
| Cutting of carcase joints (up to 5 marks) | |
| When making assessment judgements, assessors must consider how the co of carcase joints were cut. | mponent parts |
| Accurate use of cutting tools has ensured that all cutting is within tolerance | 5 |
| Accurate use of cutting tools has ensured that almost all cutting is within tolerance, with the exception of one instance | 4 |
| Accurate use of cutting tools has ensured that most cutting is within tolerance | 3 |
| Accurate use of cutting tools has ensured that some cutting is within tolerance | 2 |
| Accurate use of cutting tools has ensured that few instances of cutting are within tolerance | 1 |
| There is no evidence of accurate use of cutting tools | 0 |
| Independence of work (up to 3 marks) | |
| For guidance on reasonable assistance, assessors must refer to the 'Instru- teachers and lecturers' section. | ctions for |
| In general, additional assistance is where assessors have to demonstrate or procedure. | or describe a |
| All carcase work has been carried out independently, with no additional assistance required | 3 |
| Carcase work has been carried out independently, with one or two instances of assistance required | 2 |
| Carcase work has been carried out, with regular assistance required | 1 |
| Carcase work has been carried out with constant assistance required | 0 |
| Total marks available | 12 marks |

Machining and turnery

Dimension tolerances (up to 4 marks)

When making assessment judgements, assessors must consider the dimensions used for the assessment. These are specified in the working drawings contained within the practical activity assessment task.

Any personalised work by candidates should be accompanied by a working drawing/template, but will not be assessed. The specified dimensions in the practical activity assessment task **cannot** be altered.

| All linear and radial dimensions are within tolerance | 4 |
|--|---|
| Most linear and radial dimensions are within tolerance | 3 |
| Some linear and radial dimensions are within tolerance | 2 |
| Few linear and radial dimensions are within tolerance | 1 |
| There is no evidence of linear or radial dimensions being within tolerance | 0 |

Quality of turnery (up to 4 marks)

When making assessment judgements, assessors must relate to the standard expected at National 5 level:

- lines of turnery are smooth (no peaks and troughs)
- turnery is symmetrical about centre
- a good finish from cutting tools has been achieved
- smooth transitions, where appropriate
- good crisp shoulders, where required

| All aspects of turnery meet the standard | 4 |
|--|---|
| Most aspects of turnery meet the standard | 3 |
| Some aspects of turnery meet the standard | 2 |
| Few aspects of turnery meet the standard | 1 |
| There is no evidence of turnery meeting the standard | 0 |

Independence of work (up to 3 marks)

For guidance on reasonable assistance, assessors must refer to the 'Instructions for teachers and lecturers' section.

In general, additional assistance is where assessors have to demonstrate or describe a procedure.

| All machining and turnery work has been carried out independently, with no additional assistance required | 3 |
|---|----------|
| Machining and turnery work has been carried out independently, with one or two instances of assistance required | 2 |
| Machining and turnery work has been carried out, with regular assistance required | 1 |
| Machining and turnery work has been carried out, with constant assistance required | 0 |
| Total marks available | 11 marks |

Finishing

Preparation (up to 4 marks)

When making assessment judgements, assessors must award a mark appropriate to the standard expected at National 5 level:

- all pencil marks have been removed
- no scratches from using abrasives
- no evidence of glue marks
- all marks from processing have been removed

| All component parts prepared for finish meet the standard | 4 |
|--|---|
| Most component parts prepared for finish meet the standard | 3 |
| Some component parts prepared for finish meet the standard | 2 |
| Few component parts prepared for finish meet the standard | 1 |
| There is no evidence of preparation for finish | 0 |

Application of finish (up to 3 marks)

When making assessment judgements, assessors must consider the standard expected at National 5 level. Care should be taken when choosing an appropriate finish to avoid blemishes.

Blemishes are:

- runs that are visible
- brush marks that can be seen
- brush hairs that have not been removed
- evidence of raised grain
- an accumulation of wax
- uneven staining
- scratches from abrasives between coats

| A finish has been applied with no blemishes | 3 |
|---|---|
| A finish has been applied with some minor blemishes | 2 |
| A finish has been applied with major blemishes | 1 |
| No finish has been applied | 0 |

Independence of work (up to 3 marks)

For guidance on reasonable assistance, assessors must refer to the 'Instructions for teachers and lecturers' section.

In general, additional assistance would likely be where assessors have to demonstrate or describe a procedure.

| All finishing work has been carried out independently, with no additional assistance required | 3 |
|---|----------|
| Finishing work has been carried out independently, with one or two instances of assistance required | 2 |
| Finishing work has been carried out, with regular assistance required | 1 |
| Finishing work has been carried out, with constant assistance required | 0 |
| Total marks available | 10 marks |

Overall assembly

Quality of assembly (up to 5 marks)

When making assessment judgements, assessors must consider the assembly of component parts in conjunction with the overall assembly.

To achieve a mark between 3 and 5, the product must be **fully** assembled. If not, then a mark of 0 to 3 should be awarded based on the quality of the **partially** assembled product.

| All parts of the product have been fully assembled, are square and without any twists | 5 |
|---|---|
| All parts of the product have been fully assembled, although one corner of the flat-frame or the carcase may be slightly off-square, or there may be one slight twist | 4 |
| All parts of the product have been fully assembled, although either the flat-frame or the carcase is off-square and there may be evidence of slight twisting | 3 |
| Either the flat-frame or the carcase has been assembled, is square and free of twists | 2 |
| Although partially or fully assembled, both the flat-frame and the carcase are off-square and may show twists | 1 |
| There is no evidence of assembly | 0 |

Assembly tolerances (up to 5 marks)

When making assessment judgements, assessors must refer to the overall sizes given in the practical activity assessment task.

| All dimensions are within the specified tolerance for size and position | 5 |
|---|----------|
| All dimensions, with the exception of one, are within the specified tolerance for size and position | 4 |
| Most dimensions are within the specified tolerance for size and position | 3 |
| Some dimensions are within the specified tolerance for size and position | 2 |
| Few dimensions are within the specified tolerance for size and position | 1 |
| There is no evidence of assembly | 0 |
| Total marks available | 10 marks |

Instructions for candidates

This assessment applies to the practical activity for National 5 Practical Woodworking.

This practical activity has 70 marks out of a total of 130 marks available for the course assessment. After scaling of the question paper mark, this will represent 70% of the overall marks for the course assessment.

It assesses the following skills, knowledge and understanding:

- selecting and using a range of woodworking tools, equipment, materials and finishes
- reading, interpreting and following given working drawings, outline specification information and cutting lists
- marking out, cutting and shaping component parts
- manufacturing a finished product to given drawings and standards
- working and using tools and equipment in accordance with recognised procedures and safe working practices

This is an open-book assessment. Your teacher or lecturer will let you know how the assessment will be carried out and any required conditions for doing it.

In this practical activity, you have to:

- demonstrate skills and apply knowledge gained from the course
- use power, machine and hand tools, as specified, to manufacture a product
- prepare the product ready to apply a finish
- adhere to recognised safe working practices, as well as those stipulated within your centre
- complete the log book issued by your teacher or lecturer

You are provided with:

- all working drawings required to manufacture the product
- materials required to manufacture the product
- all necessary machine, power and hand tools
- a log book

Submitting your work

Your teacher or lecturer will let you know the time you have available to manufacture the product.

Coat rack (two-peg and four-peg)

You may demonstrate practical creativity in shaping both the turned parts and/or the sides of the coat rack, however, this is not mandatory.

You must include templates and working drawings of the turned pegs and shaping of the sides of coat rack with your work. These are used to help your assessor make their assessment decisions.

You must complete the log book, as this attracts specific marks.

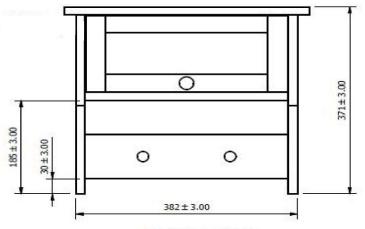
The following tolerances apply to this practical activity:

| Operation | Tolerance |
|--------------------------|-------------------|
| Individual components | |
| Planing (or similar) | ±1mm |
| Marking out and cutting | ±1mm |
| Machine/power tool tasks | ±1mm |
| Joint gaps | not to exceed 1mm |
| Overall sizes | ±3mm |

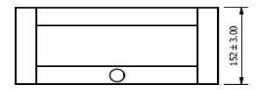
Assembly

When assembling the coat rack, the drawings below show the dimensions that should be considered as the overall sizes.

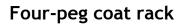
Two-peg coat rack

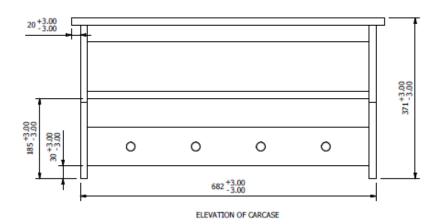


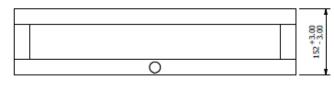
ELEVATION OF CARCASE



ELEVATION OF DOOR



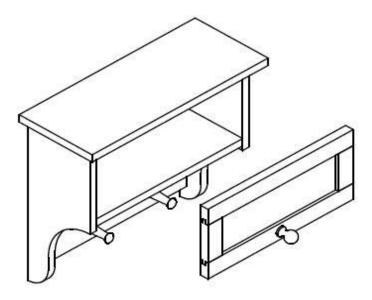


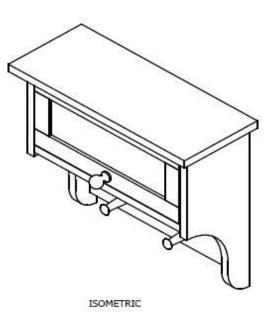




Two-peg coat rack

The two-peg coat rack shown comprises two main parts. The body of the rack is in carcase construction, while the door of the storage cupboard is made using a frame with a central panel. The pegs and cupboard door handle are turned.

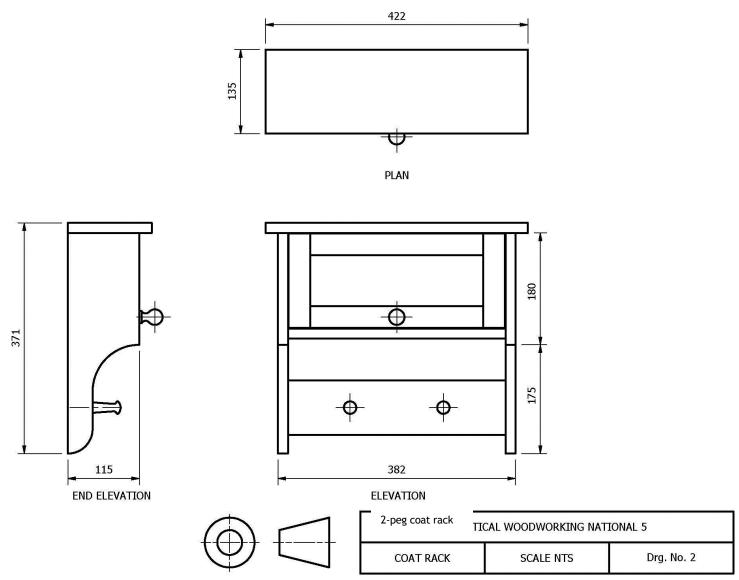




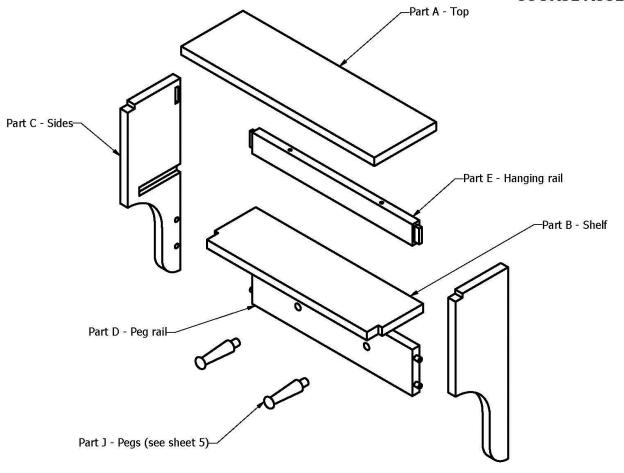
| MATN | COMPONENT | PARTS | OF THE | COAT RACK | |
|---------|-----------|-------|--------|-----------|--|
| 1.0uria | CONFORTIN | FUND | OI THE | COALINAGE | |

| PRACTICAL WOODWORKING NATIONAL 5 | | |
|----------------------------------|-----------|------------|
| COAT RACK | SCALE NTS | Drg. No. 1 |

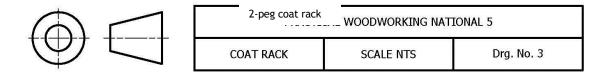
COURSE ASSESSMENT PROJECT

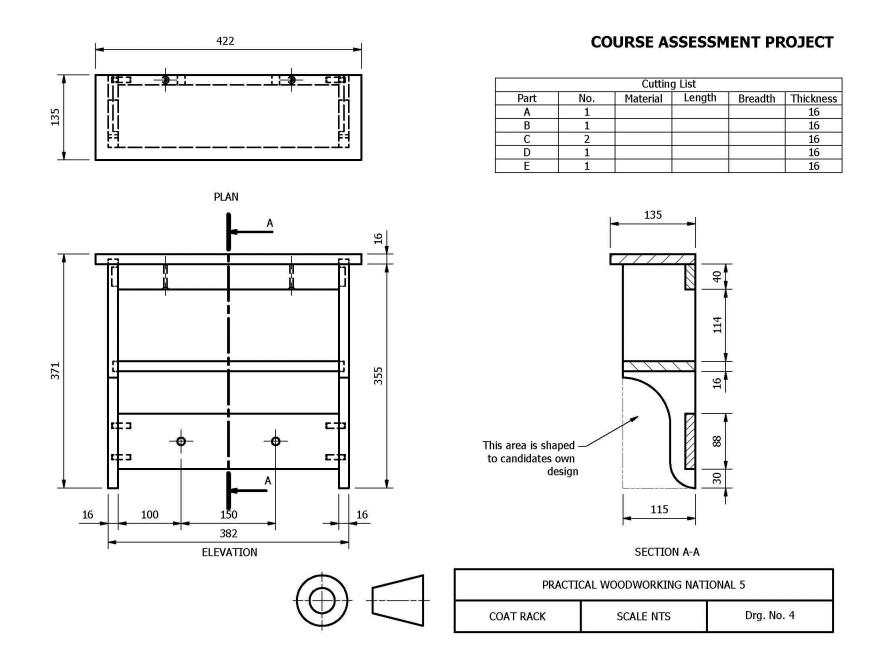


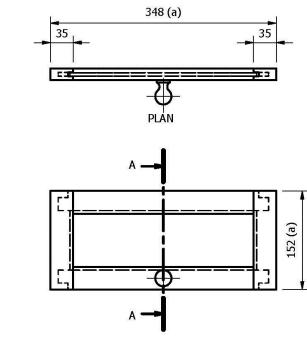
COURSE ASSESSMENT PROJECT

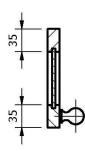


EXPLODED ISOMETRIC (CARCASE)



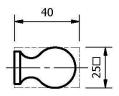






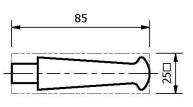
SECTION A-A

ELEVATION



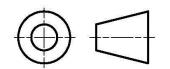
ELEVATION

Part I - Handle to be made within the limits shown to the candidates design



ELEVATION

Part J - Pegs to be made within the limits shown to the candidates design



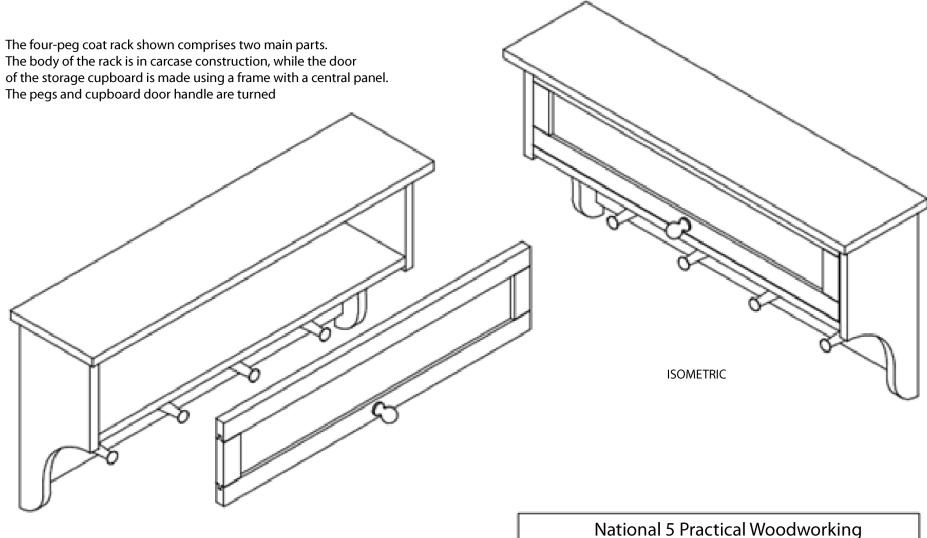
Two-peg coat rack

Note:

(a) The overall height and width of the door give a 1mm clearance gap all round to allow for fitting.

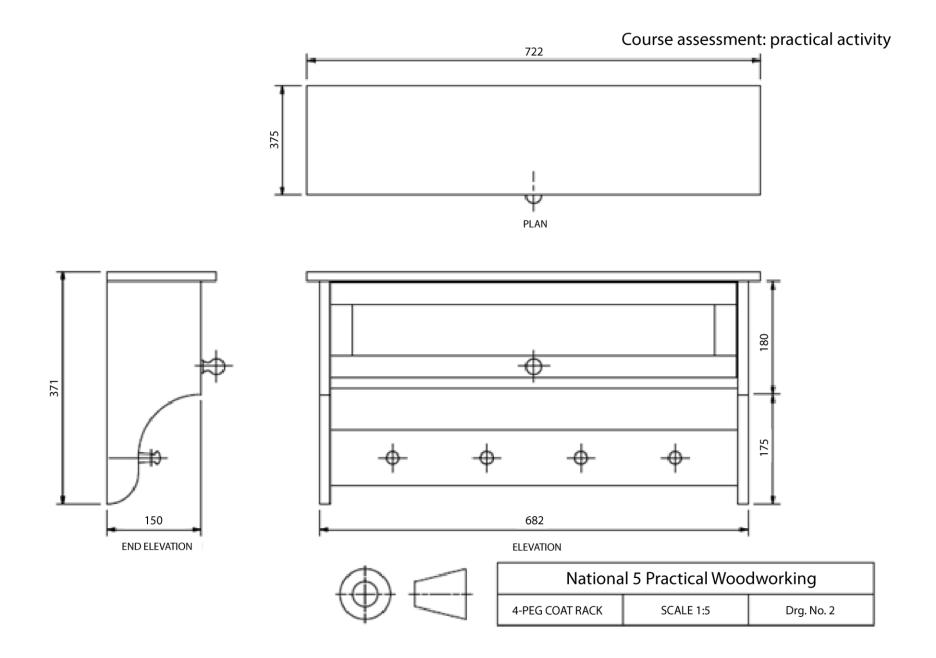
| | Cutting List | | | | | |
|------|----------------------------------|--|--|----|----|--|
| Part | Part No. Material Length Breadth | | | | | |
| F | 2 | | | | 18 | |
| G | 2 | | | | 18 | |
| Н | 1 | | | | 5 | |
| I | 1 | | | 25 | 25 | |
| J | 2 | | | 25 | 25 | |

| PRACTICAL WOODWORKING NATIONAL 5 | | | | | |
|----------------------------------|-----------|------------|--|--|--|
| COAT RACK | SCALE NTS | Drg. No. 5 | | | |

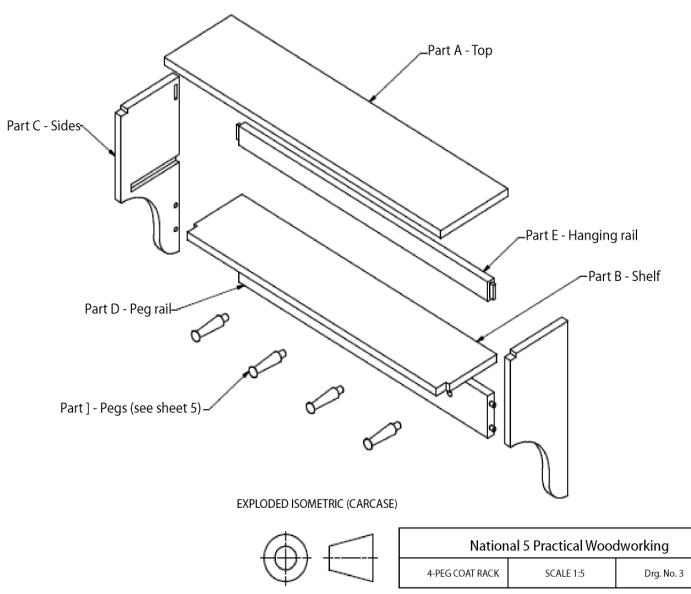


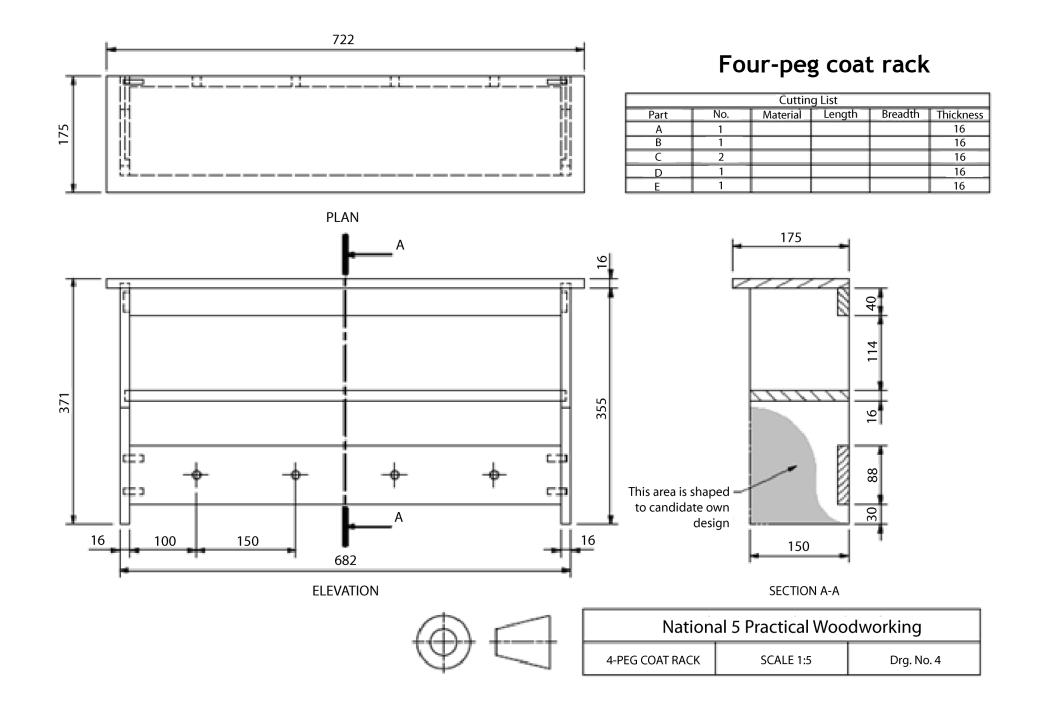
MAIN COMPONENT PARTS OF THE COAT RACK

| | 4-PEG COAT RACK | SCALE NTS | Drg. No. 1 |
|--|-----------------|-----------|------------|

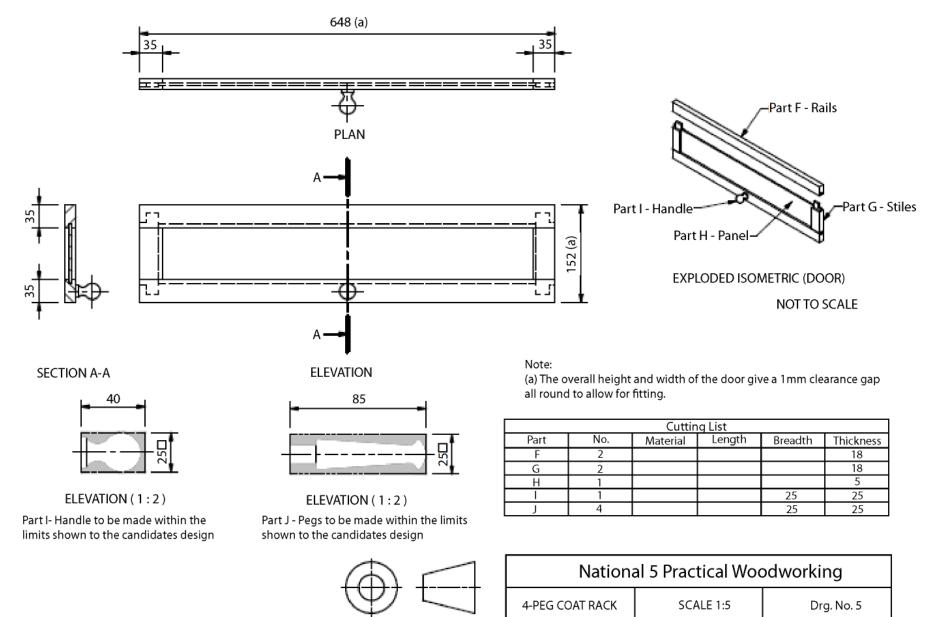


Course assessment: practical activity





Four-peg coat rack



Administrative information

Published: August 2019 (version 1.1)

History of changes

| Version | Description of change | Date |
|---------|--|----------------|
| 1.1 | Removed unnecessary detail on tolerances in the 'Instructions for candidates' section. Standardised the wording in the 'Independence of work' sections of the marking instructions. | August 2019 |
| | | |

Security and confidentiality

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