

Model Answers

Domain

Furniture Making

Unit

20047 v3

Hand turn wood to produce furniture articles

Level 2

Credits 4

Assessment Information

Entry Information

There are no pre-requisite requirements for this unit.

Required Evidence

This Assessment Guide, that includes the following completed assessment tasks:

- » Questions
- » Observation Checklist

Appeals

The candidate must understand the appeals process before carrying out this assessment.

Information about Competenz's assessment appeals process can be found on the Assessors and Moderators page of Competenz's website www.competenz.org.nz.

Change control

The following changes have been made to 20047 v3 assessment materials.

| Edition of this document | Changes made |
|---------------------------------|--|
| Edition 2 August 2017 | » Updated to Competenz 2017 assessment templates, including the addition of a 'Candidate evidence check', legislative updates in 'Assessment requirements', and the addition of an 'Assessor final judgement' section. » Updated formatting. » Footer has been updated to reflect new Edition. |
| Edition 1 July 2012 | No changes. Original document. |

Assessment Requirements

This Assessment Guide is designed to help you provide evidence of your skills and knowledge required by this unit standard.

Before you begin

Read through the assessment requirements yourself. Talk with your Assessor if there is anything you don't understand.

Meet with your Assessor to plan your assessment. Your Assessor will:

- » talk you through this Guide, and discuss when and how you will be assessed.
- » check you are ready to begin this assessment.

What you need to do

1. Complete the following assessment tasks:

| | |
|------------------------------|---|
| Questions | Answer questions about hand turning wood to produce furniture articles |
| Observation Checklist | Be observed on-job or off-job. This will involve: <ul style="list-style-type: none">» Describing the wood lathe and turning tools used to produce furniture articles.» Preparing to hand turn wood to produce furniture articles.» Hand turning wood to produce furniture articles. |

Note: Your Assessor may choose someone to verify and/or observe your work. This person must have expertise in furniture making and could be someone you report to, your trainer, or a supervisor or manager who works with you regularly.

1. You may wish to provide additional supporting evidence that proves you have the knowledge and skills required by this unit. Additional evidence may include, for example, workplace documentation you have used and/or completed, training records, photos, screenshots, printouts, videos, voice recordings.
2. When you have completed all assessment tasks, complete the 'Candidate evidence check' at the end of this Guide.
3. When you are sure you have completed and/or attached everything, contact your Assessor or Account Manager to arrange next steps.

Conditions

- » Your evidence must clearly show your ability to hand turn wood to produce furniture articles.
- » Complete all assessment tasks yourself. Use your own words when answering questions.
- » This is a closed book assessment. You must complete it without looking at any training material.
- » All tasks you carry out for this assessment must be completed following workplace procedures, and comply with organisational and legislative (legal) requirements.
- » This unit standard may be assessed against on-job or off-job.
- » Competence must be demonstrated for a one-off article of furniture or craft piece. Examples may include but are not limited to – mug tree, paper towel holder, mortar and pestle, lamp stand, table column.
- » Personal protective equipment, appropriate to job requirements, is to be selected and used in accordance with worksite policies and procedures and manufacturer's instructions.

Definitions

- » *Manufacturer's instructions* are instructions provided by manufacturers of substances, equipment, and machinery used in furniture making. These instructions may include details on safe and correct handling, use and storage of substances and/or details on substance properties. Examples are labels on substance containers, product data sheets, and operator's manuals.
- » *Worksite policies and procedures* refer to documented policies and to documented or other directions provided to staff. These may include, but are not limited to, ways of managing health and safety, environmental considerations, quality, and production, and must conform to legislation. Examples include standard operating procedures, company health and safety plans, on-site briefings, and supervisor's instructions. For the purposes of this unit standard worksite policies and procedures may also refer to the policies and procedures of an off-job training site.

Unit Standard Evidence Map

| Unit 20047 v3 | Hand turn wood to produce furniture articles | Level 2 | Credits 4 |
|---|--|------------------------------------|-----------|
| Outcomes and Evidence Requirements | | Evidence | No. |
| Outcome 1: Describe the wood lathe and turning tools used to produce furniture articles. | | | |
| 1.1 | Parts of the wood lathe are identified and described in terms of their function and safe operation. Range: head stock, tail stock, tool rest, lathe bed, driving spurs, revolving centres, pulleys. | Questions | 1 |
| 1.2 | Turning tools and measuring equipment are described in terms of function. Range: chisels, gouges, scrapers, parting tool, dividers, callipers, ruler. | Questions | 2 |
| Outcome 2: Prepare to hand turn wood to produce furniture articles. | | | |
| 2.1 | Job specifications are obtained and explained in accordance with worksite policies and procedures. Range: material, dimensions, shape or template. | Questions Observation Checklist | 4 1-3 |
| 2.2 | Material is selected in accordance with job specifications. | Observation Checklist | 1-3 |
| 2.3 | Tools and equipment are selected to produce the required shapes in accordance with job specifications. Range: turning tools, marking and measuring equipment. | Observation Checklist | 1-3 |
| 2.4 | Maintenance and safe storage of turning tools are explained in accordance with tool manufacturer's instructions and worksite policies and procedures. | Questions | 3 |
| 2.5 | Environmental and safety requirements are met in accordance with worksite policies and procedures. Range: electrical power, lighting, ventilation, dust extraction. | Observation Checklist | 17-20 |
| Outcome 3: Hand turn wood to produce furniture articles. | | | |
| 3.1 | Machine is operated in accordance with manufacturer's instructions and worksite policies and procedures. Range: speed, secure stock, tool rest. | Observation Checklist | 7-9 |
| 3.2 | Tools are manipulated to shape wood using between centre turning techniques in accordance with job specifications. | Observation Checklist | 10-12 |
| 3.3 | Tools are manipulated to turn wood using face plated or chuck mounted turning techniques in accordance with job specifications. | Observation Checklist | 10-12 |

| | | | |
|-----|--|-----------------------|-------|
| 3.4 | Dimensions and shape of output are checked during the turning process using either callipers, sizing tool or template in accordance with job specifications. | Observation Checklist | 13-14 |
| 3.5 | Tool and machine setting adjustments are made to rectify any out of specification materials. | Observation Checklist | 13-14 |
| 3.6 | Surface of stock is smoothed using tools in accordance with job specifications. Range: chisel, sandpaper | Observation Checklist | 10-12 |
| 3.7 | Machine and work area are made clean, clear, and safe in accordance with worksite policies and procedures. | Observation Checklist | 15-16 |

Any queries, contact: Competenz, PO Box 9005, Newmarket, Auckland 1149. Ph. 0800 526 1800

Questions

Answer the following questions about hand turning wood to produce furniture articles.

Use your own words. You can answer the questions in writing, or give your answers verbally to your Assessor who will write down what you say. You may need to arrange this in advance with your Assessor.

Draw pictures or diagrams to support your answers if you wish.

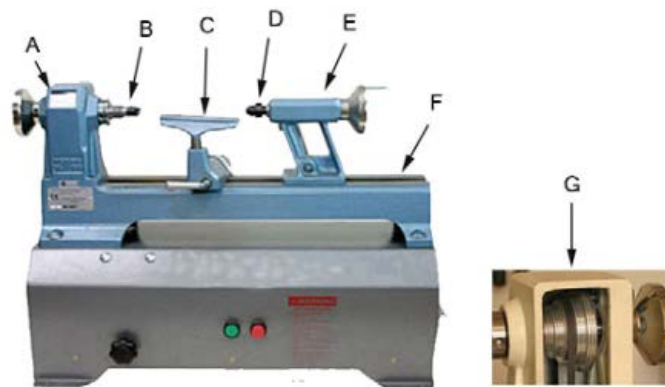
Your Assessor may ask you additional questions to check your knowledge and understanding.

Judgement statements

- The candidate's written and/or verbal responses support their competency.

| | |
|--|---|
| Your name | |
| Workplace | |
| Answers written by: (Tick one) | <input type="checkbox"/> Candidate <input type="checkbox"/> Assessor <input type="checkbox"/> Other (please write): |

1. Match the correct letter to the lathe part in the diagram below and then describe its main function and give one requirement to ensure safe operation.



Assessor

This question supports E.R. 1.1.

Example answer

| Lathe Part | ID | Function | Safe Operation |
|------------------|----|---|--|
| Tool rest | C | Support the blade of a turning tool just in front of the rotating workpiece | Before feeding cutting tools into work, make sure they are in contact with tool rest. Remove when sanding |
| Driving spur | B | To rotate the wood | The driving spur must be imbedded firmly into the workpiece |
| Pulleys | G | Adjust lathe speed | Belts should be fully guarded to avoid contact and selected for correct speed |
| Tail stock | E | Supports the end of a workpiece for between-centre turning | Ensure that all clamps and fittings are secure |
| Revolving centre | D | Supports the other end of the revolving wood | Firmly secured to tail stock and applies pressure to the workpiece and the drive spur so that it does not move |
| Lathe bed | F | Supports the tail stock, tool rest and other accessories | Lathe bed must be bolted down firmly so that it does not move |
| Head stock | A | Carries the drive shaft and pulleys | Ensure that the head stock is fully guarded |

2. Explain the correct function of the following wood turning tools and measuring equipment.

Assessor

This question supports E.R. 1.2.

Example answer

| Tool | Function |
|--------------|---|
| Chisel | Used for smoothing roughly turned wood, cut vee cuts, cut beads |
| Gouge | Used for initial stages of wood turning, used for cutting hollows |
| Scrapers | Creating initial shapes |
| Parting tool | Cutting shoulders, cutting pins |
| Dividers | Scribing |
| Callipers | To determine external and internal measurements |
| Ruler | Measuring and marking out |

3. Explain the correct maintenance and storage procedure for the following tools in accordance with the manufactures instructions and worksite policies and procedures.

Assessor

This question supports E.R. 2.4

Example answer

| Tool | Maintenance and storage procedure |
|---|--|
| Chisels, Gouges, Scrapers, Parting Tool | Clean and place back on tool rack or rest. Sharpen when dull or set aside for sharpening. |
| Dividers and Callipers | Clean after use and return to shadow board. Do not bend or stress components. |

4. Complete this worksheet to describe the relevant job specifications for the piece of furniture you will make, in terms of the items listed below.

Give a copy of this worksheet to your assessor.

Assessor

This question supports E.R. 2.1

Example answer

| Item | Description |
|---------------------------------|----------------|
| Type of product to be produced: | Table pedestal |

| | |
|---|--|
| Material to be used: | Pine |
| No. of units to be produced: | One |
| Quantity and dimensions: | e.g. 1 table top 1200mm diameter by 32mm thick e.g. Table legs at 700mm |
| Shape or template to be used: | Standard template |
| Turning tools, marking and measuring equipment required: | Gouge, Skew chisel, callipers, |

You have reached the end of the questions.

Observation Checklist

Carefully read through this Observation Checklist so you know exactly what is expected.

You, the candidate, must fill in Part A.

Part B will be completed by your Assessor or someone who has been approved by your Assessor.

Be observed on-job or off-job. This will involve:

- » Describing the wood lathe and turning tools used to produce furniture articles.
- » Preparing to hand turn wood to produce furniture articles.
- » Hand turning wood to produce furniture articles.

You may need to be observed more than once.

Your Observer may ask you additional questions to check your knowledge and understanding.

Note to the Observer

- » Complete Part B of this checklist.
- » Watch the candidate carry out each task.
- » Note down any extra questions you ask of the candidate during the observation, and their response.
- » Make sure the candidate has attached the worksheet with the relevant job specifications for the piece of furniture they will make.

Judgement statements

- The completed Observation Checklist supports the candidate's successful performance in hand turning wood to produce furniture articles.

Part A: Candidate to complete this section

Your name [Candidate name provided](#)

Workplace [Workplace identified](#)

Part B: Observer to complete this section

For each statement below, tick if you agree.

When selecting materials and equipment required for the job, the candidate:

Assessor

[Checklist 1–3 supports E.R. 2.1, 2.2, 2.3](#)



1. Provided completed worksheet accurately explaining all the job specifications.

2. Correctly selected materials required in the job specifications

3. Selected and prepared the tools and equipment required to produce the piece

Turning tools

Marking

Measuring equipment

When demonstrating that all appropriate safety equipment is selected and fits correctly, the candidate has ensured:

4. Footwear, eye protection, ear protection, dusk mask is worn.

5. Hair is out of the way / tied back.

6. Clothing is fitted and not loose.

When operating lathe in accordance with manufacturer's instructions and worksite policies and procedures, the candidate:

Assessor

[Checklist 7–9 supports 3.1](#)

7. Selected the correct speed

8. Ensured stock is correctly secured

9. Adjusted the tool rest to the correct height

When demonstrating correct selection of tools, the candidate:

Assessor

[Checklist 10–12 supports 3.2, 3.3, 3.6](#)

| | | |
|--|---|-------------------------------------|
| 10. | Manipulated tools correctly to ensure the wood is correctly shaped when using between centre turning techniques. | <input checked="" type="checkbox"/> |
| 11. | Manipulated tools correctly to ensure the wood is correctly shaped when using face plated or chuck mounted turning techniques. | <input checked="" type="checkbox"/> |
| 12. | Used the chisel in conjunction with sand paper to ensure that the surface of the stock is smooth. | <input checked="" type="checkbox"/> |
| When demonstrating that checks are carried out to ensure all job specifications are met, the candidate: | | <input checked="" type="checkbox"/> |
| Assessor | | |
| Checklist 13–14 supports 3.4, 3.5 | | |
| 13. | Checks the dimensions and shapes during the turning process at appropriate times using either callipers, sizing tool or the template. | <input checked="" type="checkbox"/> |
| 14. | Makes adjustments to tool and machine settings as required so that any out of specification material is corrected. | <input checked="" type="checkbox"/> |
| When demonstrating that work area is kept clean, clear and safe according to worksite procedures, the candidate: | | <input checked="" type="checkbox"/> |
| Assessor | | |
| Checklist 15–16 supports 3.7 | | |
| 15. | Ensures machine is turned off, made safe and cleaned in accordance with manufacturer's instructions and worksite policies and procedures. | <input checked="" type="checkbox"/> |
| 16. | Cleans work area to make it safe (e.g. discarding any wastage i.e. bigger materials in recycling, smaller items in the bin, sweeping up dust, shavings etc) | <input checked="" type="checkbox"/> |
| When demonstrating health and safety and environmental requirements of worksite policies and procedures, the candidate has ensured: | | <input checked="" type="checkbox"/> |
| Assessor | | |
| Checklist 17-20 supports 2.5 | | |
| 17. | Dust extractor is operating correctly. | <input checked="" type="checkbox"/> |
| 18. | Work area well lit. | <input checked="" type="checkbox"/> |
| 19. | Machine is isolated before any adjustments made. | <input checked="" type="checkbox"/> |
| 20. | PPE used appropriately. | <input checked="" type="checkbox"/> |

Please comment on the candidate's ability to hand turn wood to produce furniture carcass.

Any comments support the candidate's successful performance in meeting the above standards.

I confirm that I have directly observed the candidate carry out all the above tasks to the standard required.

Yes

No

Observer name and title

Observer name and title recorded

Signature

Observer signed

Phone / Email

Contact details recorded

Date

Date recorded

Candidate evidence check

Required evidence

Use this checklist to make sure you finished the assessment tasks in full.

Clearly name and label all attachments.

I have completed and/or attached:

- The Questions in this guide
- One** Observation Checklist completed and signed by an observer
- One worksheet with the relevant job specifications for the piece of furniture they will make.

Assessor

The required evidence for each assessment has been completed and/or attached.

Additional supporting evidence

If you have any other evidence which helps prove your skills and knowledge in this unit (such as completed documents, photos, videos or voice recordings), attach it and record it below.

Clearly name and label all attachments.

I have attached the following as additional supporting evidence:

Assessor

Any additional supporting evidence is relevant and further supports the candidate's competency in this unit.

Assessor final judgement

After reviewing the candidate's evidence for Unit Standard 20047 v3, it is clear that the candidate can competently:

- Describe the wood lathe and turning tools used to produce furniture articles.
- Prepare to hand turn wood to produce furniture articles.
- Hand turn wood to produce furniture articles.

Assessor feedback to the candidate

Please provide specific feedback to the candidate about their performance in meeting the requirements of this unit standard.

Assessor

Assessor name recorded

Date

Date recorded