# Event 1 - Knowledge Assessment

# Trainer & Assessor Marking Guide

## Criteria

### Unit code, name and release number

MSFFF2004 - Prepare surfaces for finishing (1)

### Qualification/Course code, name and release number

MSF31113 - Certificate III in Cabinet Making (6)

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For queries, please contact:

*Innovative Manufacturing, Robotics and Science SkillsPoint, TAFE NSW*

*98 Parry Street, Newcastle West, NSW 2302*

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This assessment can be found in the: [Learning Bank](https://share.tafensw.edu.au/share/access/searching.do?doc=%3Cxml%2F%3E&in=P7ac4831b-430a-4b8d-8b56-f7b32ed5b9cf&q=&type=standard&sort=rank&dr=AFTER)

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Instructions for the trainer and assessor** | This is a written assessment and will be assessing the student on their knowledge of the unit in preparing a range of furniture surfaces for the application of surface coatings by hand or machine.  This assessment is in four parts:   1. Multiple choice 2. True/False 3. Short Answer Questions 4. Assessment feedback   Model selections, sample responses or a criteria for each question are provided below.  Use these to support your judgement when determining a satisfactory result.  The student’s response to each question must contain the information indicated in this marking guide in order for their response to be correct. However, if a student provides information other than indicated below, and in the professional opinion of the assessor it is appropriate and meets the intent of the question, it may be considered correct.  The assessment feedback page must be signed by both the student and the assessor so the student displays that they have received, understood and accepted the feedback.  Complete the assessment feedback to the student and ensure you have taken a copy of the assessment prior to it being returned to the student.  Ensure the students name appears on the bottom of each page of the submitted assessment. |
| **About this marking guide** | The student’s response to each question must contain the information indicated in this marking guide in order for their response to be correct.  All questions must be selected correctly in order to satisfactorily complete this assessment event.  Assessors will need to make a judgement call as to whether each selection/response meets the criteria based upon the:   * Rules of Evidence:   + Validity – does the selection address the assessment question and does the evidence reflect the four dimensions of competency?   + Sufficiency – is the selection sufficient in terms of length and depth?   + Currency – has the work been done so recently as to be current?   + Authenticity – is this work the student’s own authentic work? * Principles of Assessment:   + Fairness – individual student’s needs are considered in the assessment process   + Flexibility – assessment is flexible to the individual student   + Validity – any assessment decision is justified, based on the evidence of performance of the student   + Reliability – evidence presented for assessment is consistently interpreted and assessment results are comparable irrespective of the assessor conducting the assessment * Dimensions of competency   + Task skills   + Task Management Skills   + Contingency Planning Skills   + Job Role Environment Skills |
| **Student must provide** | Pen, USB (min. 1GB) |
| **Assessor must provide** | Computers (If assessment is completed as an electronic copy) |
| **Due date/time allowed** | TBA/90 minutes |

## Part 1: Multiple choice

Read the question and each answer carefully. Put an X in the table next to your chosen answers. There may be more than one correct response for each of the following questions.

1. Identify all of the PPE that you are required to wear, when preparing timber surfaces by hand and machine sanding (Select all that apply). 1.2, PE2

Table 2 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. Approved eye protection | X |
| 1. Appropriate clothing | X |
| 1. Music playing headphones |  |
| 1. Approved foot protection | X |
| 1. Approved gloves | X |
| 1. Approved hearing protection | X |

1. Identify the engineered controls that would reduce dust exposure while preparing a surface (Select all that apply). 1.3, PE2

Table 3 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. Orbital sander |  |
| 1. Work bench |  |
| 1. Extraction unit attached to sander | X |
| 1. Down draft extraction unit | X |

1. Select all of the tools and equipment that would secure the product you are working on and help prevent damage to the product (Select all that apply)? 1.3, KE2

Table 4 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. Vacuum table/clamp | X |
| 1. Clamp with a clamping block | X |
| 1. Down draft table |  |
| 1. Bench vice | X |

1. Where would you find information to understand the final finish requirements for a particular project? 1.5

Table 5 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. Product Catalogue |  |
| 1. Product MSDS |  |
| 1. Job Specification sheet | X |
| 1. Colour charts |  |

1. What would be the final grade (grit) abrasive paper used for finish sanding prior to coating the surfaces? 2.1, KE2

Table 6 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. 80-100 grade |  |
| 1. 100-120 grade |  |
| 1. 120-150 grade |  |
| 1. 180-240 grade | X |

1. Which surface preparation tool would be the best for creating a consistent flat surface when sanding timber products? 2.1, KE2

Table 7 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. Belt sander |  |
| 1. Sanding block with abrasive paper | X |
| 1. Abrasive paper folded neatly |  |
| 1. Rasp or file |  |

1. Which is the best hand tool for removing shallow scratches in a timber surface? 2.3, KE2

Table 8 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. Hand plane |  |
| 1. Portable Belt sander |  |
| 1. Cabinet scraper | X |
| 1. Chisel |  |

1. Why are quality checks performed during the sanding of a timber panel (Select all that apply)? 2.4

Table 9 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. To check people are completing the work |  |
| 1. For suitability for further processing e.g. polishing | X |
| 1. To check that the grain is smooth | X |
| 1. To check for surface faults | X |

1. Select all of the different types of abrasive paper that can be used for the preparation of timber and metal surfaces (Select all that apply)? KE2

Table 10 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. Aluminium oxide | X |
| 1. Sand |  |
| 1. Silicon carbide | X |
| 1. Garnet | X |

1. Which **hazardous** substance or material can be used to raise a dent in timber? KE3

Table 11 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. Water |  |
| 1. Petrol |  |
| 1. Turpentine |  |
| 1. Methylated spirits | X |

1. Select all of the actions that would be appropriate in a workplace, if a component has a defect that can’t be repaired? 2.5

Table 12 Multiple choice

| Selection choices | Put X next to your answer/s |
| --- | --- |
| 1. Place the component in the waste bin |  |
| 1. Report it to the supervisor |  |
| 1. Save it for another job |  |
| 1. Cut out the defect repair it and use the panel |  |
| 1. All of the above | X |

## Part 2: True or false

Read the question and then write **True** or **False** in the space provided.

Table 13 True or false

| Question | Write *True* or *False* |
| --- | --- |
| 1. Work bench or timber preparation area should be clear of oils and stains 1.4 | *True* |
| 1. Workplace procedures are in place to ensure the completion of tasks to the required standard 1.5 | *True* |
| 1. The higher the number of the grit on abrasive paper makes it more course or rough, compared to a lower numbered grit KE2 | *False* |
| 1. The surface preparation should always be checked for conformity to normal workplace procedures and the specifications of the project 2.2 | *True* |
| 1. Dents on hardwood timber can be lifted without the use of heat 2.3 | *True* |
| 1. Quality inspecting while sanding timber products can save time by not having to resolve faults 2.4 | *True* |
| 1. Different types of coatings on timber products can affect the sequence of work KE1 | *True* |
| 1. Jobs completed and ready for finishing can be stored anywhere in the factory, without being labelled and identified 3.1 | *False* |
| 1. When sanding timber with a Sanding block, it is OK to sand across the grain of the timber KE2 | *False* |

## Part 3: Short Answer Questions

## Read the questions carefully. Your answers should be a minimum of 10 words but no longer than 50 words (unless indicated otherwise).

1. Describe one characteristic of hardwood. 1.1

Hardwood timbers are classified as pored. This means they have open grain appearance. Hardwood generally has a higher density that softwood. Staining hardwood can be easier because there are more pores to hold the stain, it takes less coats to stain and is easier to create an even coverage.

1. Describe one characteristic of softwood. 1.1

Softwood timbers are classified as non-pored. This means they have little or no grain. Softwood generally has a lower density that softwood. Staining softwood can be more difficult because there are fewer pores to hold the stain, it takes more coats to stain and is harder to create an even coverage.

1. Describe one characteristic of particle board. 1.1

Particle board can have a veneer surface. The raw surface is flat and very porous. The edge has hollow and rough chips usually of pine. It is machine made. It is not very good for applying a surface finish.

1. Describe one characteristic of Medium Density Fibre Board (MDF). 1.1

MDF board can have a veneer surface. The raw surface is flat and very porous and waxy. The edge is fine and can be routed, sanded smooth and painted/polished. It is machine made.

1. Write 3 things that could contaminate a timber surface in a way that would affect the quality of any surface finish (polish) that would be applied. 1.4

Wax, oils, stains chemicals, dust, finger prints, and marks from fingers

1. Describe one procedure for preparing/repairing a loose knot in a piece of timber 1.5, 2.5, KE2

Remove the loose pieces. Clean the hollow to remove dust, dirt and small pieces. Fill with appropriate filler above the surface and when cured sand flush

1. Describe one method for lifting a dent in softwood 2.3, 2.5, KE2

Water placed in the dent, Methylated spirits placed in the dent, Steam and heat applied directly to the dent, use a damp rag with a hot iron

1. Identify three steps in the preparation of a timber surface. KE2

1/ Pre check and rectify faults

2/ Sand surfaces with machines

3/ Fine sand, finish with straight grain sand and arris.

1. Identify one characteristic and a method of application, for each of the different surface coatings (furniture polish) listed below. 1.1, KE1

1/ Lacquer, (nitro cellulose)

Characteristic: Lacquer does not penetrate into wood, but only forms a thin layer on the surface.

Method of application: Can be applied by brush, hand or spray

2/ Shellac

Characteristic: Dries fast, shellac “melts” into the previous one, so when you finish a piece with shellac you end up with a single layer of finish.

Method of application: Can be applied by brush, hand

3/ Polyurethane

Characteristic: The impact resistance of polyurethane is exceptional, even at low temperatures, and it also offers resistance to cracking, tearing, breaking or swelling.

Method of application: Can be applied by spray

1. Identify three grades (grit) of abrasive from first sand to final sand, for completing a surface preparation on a timber product requiring a clear lacquer finishing. KE2

1st sand - 120 grade 1st sand - 120 grade

2nd sand - 180 grade or 2nd sand - 150 grade

3rd sand - 240 grade 3rd sand - 180 grade

Any 3 combinations starting with 120 grit and finishing no finer than 400 grit

1. What document should you read and understand before using a hazardous substance? KE3

MSDS (Material Safety Data Sheet)

1. Indicate in the table below, two hazards for each of the chemicals listed and one way that each of the chemicals are used in the preparation of surfaces for finishing (polishing). KE3

| Hazardous chemicals | List 2 hazards | How is the chemical used for surface preparation |
| --- | --- | --- |
| Mentholated spirits | Burns to eyes, skin irritation, inhalation or fume hazard, ingestion hazard, fire hazard | Used to raise dents in timber, applied to dent and lit which creates heat and lifts dents in timber, used to clean shellac from tools and equipment. |
| Thinners | Burns to eyes, skin irritation, burns to skin, inhalation or fume hazard, ingestion hazard, fire hazard, toxicity to organs, toxicity to reproduction | Used to clean up tools and equipment (brushes, spray equipment). |
| Paint stripper | Burns to eyes, burns to skin, inhalation or fume hazard, ingestion hazard, fire hazard, toxicity to organs | Used to remove polish from timber. |

1. Describe two procedures or considerations for storing a project components, once they have been prepared and ready for finishing. 3.1

Store components on a horizontal rack, components separated with packing and allow for airflow, include the job and client’s details attached to the components, store components in an area that will minimise contamination

1. Number the provided steps, into the correct sequence for the **application** of a surface coating (Spray polish). KE4

Table 14 Work sequence

| Steps | Number steps into the correct sequence, from 1 to 12 |
| --- | --- |
| * Final inspect the components for the quality of finish and store appropriately. | 11 |
| * Check the function of the spray equipment. | 5 |
| * Apply the first coat of polish. | 6 |
| * Set up the work space, including the tools/equipment required and a storage area for the polished components between coats. | 3 |
| * Apply the second coat of polish. | 8 |
| * Ensure that all PPE is fitted correctly. | 4 |
| * Inspect the surface and cut back the polish with 320 grit abrasive paper. | 9 |
| * Apply the third coat of polish. | 10 |
| * Inspect the surface and cut back the polish with 240 grit abrasive paper. | 7 |
| * Initial inspection of the components for quality and suitability for the application of polish. | 2 |
| * Clean up workspace, clean and return tools and equipment into storage, return chemicals into storage and dispose of waste chemicals. | 12 |
| * Read the job specifications to establish the type of polish to use and the MSDS’s for understanding the WHS issues of the chemicals to be used. | 1 |

1. Number the provided steps, into the correct sequence for the **removal** of a surface coating (polish). KE4

Table 15 Work sequence

| Steps | Number steps into the correct sequence, from 1 to 9 |
| --- | --- |
| * Open the container and apply the paint stripper, place the component into ventilated storage area, allow time for the stripper to soak into the surface of the polish. | 5 |
| * Read the job specifications or test the component surface to establish the type of paint stripper to use. Read the MSDS for understanding the WHS issues of the chemicals to be used. | 1 |
| * Remove the paint stripper with a scraper, place waste into an appropriate container, wash down the surface with water and place back into storage until surface is dry. | 6 |
| * Set up a well ventilated work space, the tools/equipment required, a bucket of water for washing off stripper and a storage area for the components between coats of paint stripper. | 2 |
| * Clean up workspace, clean and return tools and equipment into storage, return chemicals into storage and dispose of waste chemicals. | 8 |
| * Establish access to clean water, in case of skin contact or eye exposure to the paint stripper. | 3 |
| * Ensure that all PPE is fitted correctly including gloves, long sleave overalls and protective glasses. | 4 |
| * Sand component surface so that it is ready for the application of new polish. | 9 |
| * Repeat the process of application and removal of stripper, until the polish has been completely removed. | 7 |

1. Name the tool in the table below KE2

Table 16 Name the tool

| Tool | Tool Name |
| --- | --- |
| Sanding tool  Reproduced by TAFE NSW with the permission of Just Tool Australia 2019 | Tool: Orbital sander |

1. Name the tool in the table below KE2

Table 17 Name the tool

| Tool | Tool Name |
| --- | --- |
| Sanding tool  Reproduced by TAFE NSW with the permission of Just Tool Australia 2019 | Tool: Hand sanding block with dust extraction |

1. Name the tool in the table below KE2

Table 18 Name the tool

| Tool | Tool Name |
| --- | --- |
| Sanding tool  Reproduced by TAFE NSW with the permission of Just Tool Australia 2019 | Tool: Hand sanding block |

1. Name the tool in the table below KE2

Table 19 Name the tool

| Tool | Tool Name |
| --- | --- |
| Surface finishing tool  © TAFE NSW 2019 | Tool: Cabinet scrapers |