

Federal Democratic Republic of Ethiopia

OCCUPATIONAL STANDARD



FURNITURE MAKING

NTQF Level I, II and III



*Ministry of Education
September 2012*

Introduction

Ethiopia has embarked on a process of reforming its TVET-System. Within the policies and strategies of the Ethiopian Government, technology transformation – by using international standards and international best practices as the basis, and, adopting, adapting and verifying them in the Ethiopian context – is a pivotal element. TVET is given an important role with regard to technology transfer. The new paradigm in the outcome-based TVET system is the orientation at the current and anticipated future demand of the economy and the labor market.

The Ethiopian Occupational Standards (EOS) is the core element of the Ethiopian National TVET-Strategy and an important factor within the context of the National TVET-Qualification Framework (NTQF). They are national Ethiopia standards, which define the occupational requirements and expected outcome related to a specific occupation without taking TVET delivery into account.

This document details the mandatory format, sequencing, wording and layout for the Ethiopian Occupational Standard comprised of Units of Competence.

A Unit of Competence describes a distinct work activity. It is documented in a standard format that comprises:

- Occupational title and NTQF level
- Unit code
- Unit title
- Unit descriptor
- Elements and Performance criteria
- Variables and Range statement
- Evidence guide

Together all the parts of a Unit of Competence guide the assessor in determining whether the candidate is competent.

The ensuing sections of this EOS document comprise a description of the respective occupation with all the key components of a Unit of Competence:

- chart with an overview of all Units of Competence for the respective level (Unit of Competence Chart) including the Unit Codes and the Unit Titles
- contents of each Unit of Competence (competence standard)
- occupational map providing the technical and vocational education and training (TVET) providers with information and important requirements to consider when designing training programs for this standards, and for the individual, a career path

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UNIT OF COMPETENCE CHART

Occupational Standard: Furniture Making

Occupational Code: IND FMK

NTQF Level I

[IND FMK1 01 0912](#)

Read and Interpret
Plans and Working
Drawings

[IND FMK1 02 0912](#)

Carry Out
Measurements and
Calculations

[IND FMK1 03 0912](#)

Select Materials for
Furniture Production

[IND FMK1 04 0912](#)

Operate Basic
Woodworking
Machines

[IND FMK1 05 0912](#)

Produce Hand Made
Timber Joints

[IND FMK1 06 0912](#)

Prepare Surfaces for
Finishing

[IND FMK1 07 0912](#)

Use and Maintain
Hand and Power
Tools

[IND FMK1 08 0912](#)

Apply Quality
Standards

[IND FMK1 09 0912](#)

Work with Others

[IND FMK1 10 0912](#)

Receive and Respond
to Workplace
Communication

[IND FMK1 11 0912](#)

Demonstrate Work
Values

[IND FMK1 12 0912](#)

Develop
Understanding of
Entrepreneurship

[IND FMK1 13 1012](#)

Apply 5S Procedures

NTQF Level II

[IND FMK2 01 0912](#)
Perform Equipment
Maintenance

[IND FMK2 02 0912](#)
Set-up and Operate
Woodworking
Machines

[IND FMK2 03 0912](#)
Produce Furniture
Components and
Fixtures

[IND FMK2 04 0912](#)
Assemble Furniture
Component and
Fixtures

[IND FMK2 05 0912](#)
Apply Finishing
Touches

[IND FMK2 06 0912](#)
Apply Sheet
Laminates by Hand

[IND FMK2 07 0912](#)
Work in Team
Environment

[IND FMK2 08 0912](#)
Participate in
Workplace
Communication

[IND FMK2 09 0912](#)
Develop Business
Practice

[IND FMK2 10 1012](#)
Apply Continuous
Improvement
Processes (Kaizen)

NTQF Level III

[IND FMK3 01 0912](#)
Prepare Technical Drawings

[IND FMK3 02 0912](#)
Construct Jigs and Fixtures

[IND FMK3 03 0912](#)
Prepare Cutting List

[IND FMK3 04 0912](#)
Bend and Form Wooden Materials

[IND FMK3 05 0912](#)
Apply Hardware / Fixtures and Accessories

[IND FMK3 06 0912](#)
Prepare Bill of Quantity

[IND FMK3 07 0912](#)
Apply Decorative Finishing

[IND FMK3 08 0912](#)
Monitor Implementation of Workplan/Activities

[IND FMK3 09 0912](#)
Apply Quality Control

[IND FMK3 10 0912](#)
Lead Small Teams

[IND FMK3 11 0912](#)
Lead Workplace Communication

[IND FMK3 12 0912](#)
Improve Business Practice

[IND FMK3 13 1012](#)
Maintain Quality System and Continuous Improvement Processes (Kaizen)

NTQF Level I

Occupational Standard: Furniture Making Level I	
Unit Title	Read and Interpret Working Drawings and Sketches
Unit Code	IND FMK1 01 0912
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to read and interpret drawings in furniture production.

Elements	Performance Criteria
1. Interpret technical drawing	1.1 Components, assemblies or objects are recognized as required. 1.2 Dimensions are identified as appropriate. 1.3 Instructions are identified and followed as required. 1.4 Material requirements are identified as required. 1.5 Tolerance , limits and fits are identified in drawing.
2. Read and interpret job specifications	2.1 Job specifications are identified from drawings, notes and descriptions. 2.2 Standards of work, finishes and tolerances are identified from project specifications. 2.3 Material attributes are identified from specifications
3. Interpret details from freehand sketch	3.1 Components, assemblies or objects are recognized as required. 3.2 Dimensions are identified as appropriate. 3.3 Instructions are identified and followed as required. 3.4 Material requirements are identified in accordance to job specifications and work orders.

Variable	Range
Occupational Health and Safety (OHS)	OHS requirements are to be in accordance with federal/regional legislation and regulations, organizational safety policies and procedures, and project safety plan. <ul style="list-style-type: none"> • This may include protective clothing and equipment, use of tools and equipment, workplace environment and safety, handling of materials, use of firefighting equipment, organizational first aid, hazard control and hazardous materials and substances • Personal protective equipment is to include that prescribed under legislation, regulation and workplace policies and practices • Emergency procedures are to include but may not be limited

	extinguishing fires, organizational first aid requirements and evacuation
Tools and Equipment	Equipment is to include but not be limited to drawings, sketches, blue prints and pencils.

Evidence Guide	
Critical Aspects of Competence	Assessment requires evidence that the candidate: <ul style="list-style-type: none"> • read and interpreted accurately technical drawings/sketches
Underpinning Knowledge	Demonstrates knowledge of: <ul style="list-style-type: none"> • understanding specifications and relating to job requirements • key features of formal job specifications • drawing symbols • dimensioning techniques • tolerance, limits and fits • drawing tools and supplies
Underpinning Skills	Demonstrates skills of: <ul style="list-style-type: none"> • reading working drawings • interpreting signs and symbols • calculate tolerance, limits and fits • applying basic mathematical processes • using drawing tools and supplies
Resource Implications	The following resources must be provided: <ul style="list-style-type: none"> • Workplace or fully equipped assessment location with necessary tools and equipment as well as consumable material
Methods of Assessment	Competence may be accessed through: <ul style="list-style-type: none"> • Interview / Written exam • Observation / Demonstration
Context of Assessment	Competence may be assessed individually in the actual workplace or through accredited institution

Occupational Standard: Furniture Making Level I	
Unit Title	Carry-out Measurements and Calculations
Unit Code	<u>IND FMK1 02 0912</u>
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to accurately complete measurements and calculations of materials related to work requirements in furniture making.

Elements	Performance Criteria
1. Obtain measurements	1.1 Purpose of obtaining measurements is clarified and confirmed. 1.2 Most appropriate method of obtaining the measurement is selected and applied. 1.3 Accurate measurements are obtained, confirmed and recorded. 1.4 Quality assurance requirements, standards and tolerances associated with the company's operations are recognized and adhered to.
2. Perform simple calculations	2.1 Purpose of performing the calculations is clarified and confirmed. 2.2 Method or formula for achieving the required result is selected. 2.3 Simple calculations involving length, perimeter, mass and volume are carried out. 2.4 Results are confirmed and recorded.
3. Estimate approximate quantities	3.1 Types and standard unit packaging of materials are identified from workplace documentation. 3.2 Dimensions of the job are obtained from workplace documentation/plans. 3.3 Quantities of materials suitable for the work to be undertaken are calculated, confirmed and recorded. 3.4 Material costs for simple jobs are estimated to within $\pm 10\%$.

Variable	Range
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> • OHS requirements may include legislation, material safety management systems, hazardous substances and dangerous goods codes and local safe operating procedures • Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organization insurance requirements
Tools and Equipment	<ul style="list-style-type: none"> • Rulers, tape measures, squares and calculator
Measurements may include	<ul style="list-style-type: none"> • Measurements are to be in metric scale, cover all dimensions of furniture and involve the use of rulers, tape measures, squares. They may involve laser or equivalent technology.
Calculations may include	<ul style="list-style-type: none"> • Calculations to include: area, perimeter, volume, mass, scales and ratios (ingredients/elements and triangulation) and require the application of addition, subtraction, multiplication and division processes

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • obtained accurate measurement • performed correct calculations
Underpinning Knowledge	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • basic analysis of drawings, specifications and job detail • materials relevant to the furnishing industry • basic operations in simple geometry and measurement • the theory and practice of calculations (addition, subtraction, multiplication, division) • costing processes relative to the sector activities • estimation techniques and procedures
Underpinning Skills	<p>Demonstrates skills of:</p> <ul style="list-style-type: none"> • obtaining measurements • performing simple calculations • estimating approximate quantities • calculate tolerance, limits and fits
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Workplace or fully equipped assessment location with necessary tools and equipment as well as consumable material
Methods of Assessment	<p>Competence may be accessed through:</p> <ul style="list-style-type: none"> • Interview / Written exam • Observation / Demonstration
Context of Assessment	<p>Competence may be assessed individually in the actual workplace or through accredited institution</p>

Occupational Standard: Furniture Making Level I	
Unit Title	Select Materials for Furniture Production
Unit Code	IND FMK1 03 0912
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to select timber and manufactured materials for use in the production of furniture.

Elements	Performance Criteria
1. Determine materials requirement	<p>1.1 Structural requirements for materials are determined from workplace documentation.</p> <p>1.2 Timber/manufactured materials are assessed for suitability in accordance with selection criteria.</p> <p>1.3 Written report is prepared substantiating selection of materials.</p>
2. Evaluate selected materials	<p>2.1 Other materials which may be incorporated into furnishing item are identified.</p> <p>2.2 Compatibility factors to be considered are recorded for inclusion in production plans.</p> <p>2.3 Moisture content of timber selected is determined to ensure compliance with production requirements based on guideline and using appropriate tools/equipment.</p> <p>2.4 Density and working properties of timber are determined to ensure compliance with production requirements in line with working guideline.</p> <p>2.5 Any faults or features in the timber are identified and strategies are suggested to overcome/minimize their effects</p> <p>2.6 Timber is checked for fungus and insects according to the observed defect.</p> <p>2.7 Recommendations on any changes to appropriate finishes and adhesives are recorded for inclusion in production plans.</p>
3. Treat affected timber	<p>3.1 Arrange timber according to thickness.</p> <p>3.2 Timber is dried with kiln or air drying according to specification.</p> <p>3.3 Timber is treated with appropriate chemicals to eradicate identified wood parasites.</p> <p>3.4 Timber is sent for production in accordance with job order</p> <p>3.5 OHS procedures and measures are observed throughout the process.</p>

Variable	Range
Materials	<ul style="list-style-type: none"> • Timber / Lumber (indigenous or imported) • Manufactured
Selection criteria	<ul style="list-style-type: none"> • Aesthetic appeal • Shape • Volume • Characteristics
Tools and Equipment	<ul style="list-style-type: none"> • Moisture meter
Working properties	<ul style="list-style-type: none"> • Hardness • Strength • Brittleness
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> • OHS requirements include legislation, material safety management systems, hazardous substances and dangerous goods codes and local safe operating procedures or equivalent • Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organization insurance requirements

Evidence Guide	
Critical Aspects of Competence	<p>Interpret work order and locate and apply relevant information-</p> <ul style="list-style-type: none"> • Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment • Follow work instructions, operating procedures and inspection practices to: <ul style="list-style-type: none"> - prevent damage to equipment and products - maintain required production output and product quality - minimize the risk of injury to self and others • From a range of ten common furniture species samples, identify the species correctly, match it to a specified application and justify the choice • Correctly identify natural and seasoning faults in selected timbers • Use a moisture meter to measure moisture content in a minimum of three samples, including one hard and one soft timber • Work effectively with others
Underpinning Knowledge	<ul style="list-style-type: none"> • Characteristics and uses of a range of available indigenous and overseas timber • Commonly used complementary materials and their

	<p>compatibility when used in conjunction with others</p> <ul style="list-style-type: none"> • Impact of climate change and workshop conditions on timbers • Handling of manufactured materials • Timber seasoning methods, techniques and faults • Solid timber conversion techniques
Underpinning Skills	<p>Demonstrates skills of:</p> <ul style="list-style-type: none"> • determining material requirements • evaluating timber • treating defective / affected timber
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Workplace or fully equipped assessment location with necessary tools and equipment as well as consumable material
Methods of Assessment	<p>Competence may be accessed through:</p> <ul style="list-style-type: none"> • Interview / Written exam • Observation / Demonstration
Context of Assessment	<p>Competence may be assessed individually in the actual workplace or through accredited institution</p>

Occupational Standard: Furniture Making Level I	
Unit Title	Operate Basic Woodworking Machines
Unit Code	IND FMK1 04 0912
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to operate basic woodworking machines used for sawing, planing, sanding and drilling operations for the production of furniture.

Elements	Performance Criteria
1. Prepare for work	<p>1.1 Work instructions are used to identify job requirements, including quality, materials, equipment, and quantities</p> <p>1.2 Workplace health and safety requirements, including ventilation requirements and personal protection needs, are observed throughout the work</p> <p>1.3 Material for machining is selected and inspected for quality</p> <p>1.4 Tools, equipment and machines, cutting tools and jigs are identified and checked for safe and effective operation</p>
2. Operate machines	<p>2.1 Safety equipment, including emergency stops, gauges, guards and controls are checked.</p> <p>2.2 Machine start-up procedure is carried out in accordance with manufacturers' instructions.</p> <p>2.3 Material is fed into machine in accordance with manufacturers' instructions, safe handling procedures and standard workplace operating procedures.</p> <p>2.4 Machine is operated in accordance with its designed capacity and purpose, tooling requirements and to manufacturers' recommendations.</p> <p>2.5 Machine operation is monitored to ensure product quality and output.</p> <p>2.6 Waste quantities are checked and minimized.</p> <p>2.7 Items that do not meet quality requirements are recycled or discarded according to workplace procedures.</p> <p>2.8 Defective machines are identified and reported to appropriate persons</p>
3. Clean up work area and maintain equipment	<p>3.1 Material that can be reused is collected and stored following storage procedure.</p> <p>3.2 Waste and scrap are removed following OHS procedures.</p> <p>3.3 Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace</p>

	<p>procedures</p> <p>3.4 Replacing and adjusting minor problems on hand tools and portable machines is performed according to guidelines.</p> <p>3.5 Unserviceable/un adjustable equipment is reported in accordance with workplace procedures</p>
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Variable	Range
Workplace / Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> • OHS requirements include legislation, material safety management systems, hazardous substances and dangerous goods code and local safe operating procedures • Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organization insurance requirements
Tools and Equipment	<ul style="list-style-type: none"> • Circular saw , surface planner, jointer/thicknesser planer, belt sander, disk sander, drill machine and band saw
Material	<ul style="list-style-type: none"> • Material to be machined may include but is not limited to: solid timber and manufactured board

Evidence Guide	
Critical Aspects of Competence	<ul style="list-style-type: none"> • Identify work requirements • Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment • Identify materials used in the work process • Follow work instructions, operating procedures and inspection processes to: <ul style="list-style-type: none"> - minimize the risk of injury to self or others - prevent damage to goods, equipment and products - maintain required production output and product quality • Operate and monitor the machines and complete the tasks identified in the Range Statement for: <ul style="list-style-type: none"> - one saw - one planer - one drill - one sander • Work effectively with others
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • The characteristics, uses and limitations of basic woodworking machines • General workplace quality standards and procedures • Workplace safety policies and procedures • Procedures for reporting machinery faults and material defects • Knowledge of mathematical ideas and techniques.

	<ul style="list-style-type: none"> • Basic arithmetical computing • Knowledge of checking techniques to identify, avoid or solve work problems • Knowledge of using the workplace technology related to machine operations, including tools, equipment and basic measuring devices.
Underpinning Skills	<p>Demonstrates skills of:</p> <ul style="list-style-type: none"> • operating basic woodworking machines • maintaining basic woodworking machines • performing housekeeping
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Workplace or fully equipped assessment location with necessary tools and equipment as well as consumable material
Methods of Assessment	<p>Competence may be accessed through:</p> <ul style="list-style-type: none"> • Interview / Written exam • Observation / Demonstration
Context of Assessment	<p>Competence may be assessed individually in the actual workplace or through accredited institution</p>

Occupational Standard: Furniture Making Level I	
Unit Title	Produce Hand Made Timber Joints
Unit Code	IND FMK1 05 0912
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to join timber by producing joints using hand and portable power tools.

Elements	Performance Criteria
1. Plan and prepare for work	<p>1.1 Workplace health and safety requirements, including personal protection needs, are observed throughout the work.</p> <p>1.2 Tools, equipment and materials are selected and checked prior to use to ensure that all are appropriate for the work, serviceable and in a safe condition.</p> <p>1.3 Product purpose, furniture style and joint type are identified from workplace documentation/design.</p> <p>1.4 Tools, adhesives and fasteners are selected to match the joint type.</p>
2. Make joint	<p>2.1 Cutting and joining lines are marked out to suit joint type based on design</p> <p>2.2 Measurements and calculations are checked for accuracy to ensure quality outcomes.</p> <p>2.3 Timber is joined in accordance with work requirements.</p> <p>2.4 Fasteners and adhesives are used to make joints firm where required.</p> <p>2.5 Finished joint is checked against quality requirements.</p>
3. Complete housekeeping	<p>3.1 Unused materials are stored or recycled as required.</p> <p>3.2 Tools and equipment are cleaned and stored appropriately</p> <p>3.3 Work area is cleaned and rubbish disposed off in line with safety rules.</p> <p>3.4 Workplace documentation and/or reports are completed</p>

Variable	Range
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> • Workplace health and safety requirements may include: OHS legislation, material safety management systems, hazardous and dangerous goods codes and local safe operating procedures or equivalent • Work is carried out in accordance with legislative obligations, organization insurance requirements, environment legislation, and manual handling procedures and relevant regulations

Tools and Equipment	<ul style="list-style-type: none"> • chisels, mallets, mortise gauges, venire calipers, vices, dovetail saws, tenon saws, coping saws, planes, files, hand drills, power drills, dowel jigs , power routers portable biscuit machines, power planers, power saws and power sanders
Joint type	<p>Joints may include but not limited to:</p> <ul style="list-style-type: none"> • dowel, mortise and tenon, dovetail, lap joint, biscuit joint, finger joint, housing joint, miter and bridle joints

Evidence Guide	
Critical Aspects of Competence	<ul style="list-style-type: none"> • Interpret work order and locate and apply relevant information • Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment • Follow work instructions, operating procedures and inspection practices to: <ul style="list-style-type: none"> – prevent damage to goods, equipment and products – maintain required production output and product quality – minimize the risk of injury to self and others • Select appropriate joint types for the furniture item • Utilize at least three different adhesive types • To produce a minimum of four different joint types as specified in the Range Statement in accordance with industry standards on tolerances with at least two produced substantially by hand operations • Work effectively with others • Modify activities to cater for variations in workplace contexts and environment
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • The characteristics, uses and limitations of joints • General workplace quality standards and procedures • Workplace safety policies and procedures • Measurement and basic computation • Interpreting designs • Types of timber and joining materials • Types and kinds of hand tools and power tools and equipment • Material specifications and applications
Underpinning Skills	<p>Demonstrates skills of:</p> <ul style="list-style-type: none"> • operating power tools • making joints • performing housekeeping
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Workplace or fully equipped assessment location with necessary tools and equipment as well as consumable material
Methods of Assessment	<p>Competence may be accessed through:</p> <ul style="list-style-type: none"> • Interview / Written exam

	• Observation / Demonstration
Context of Assessment	Competence may be assessed individually in the actual workplace or through accredited institution

Occupational Standard: Furniture Making Level I	
Unit Title	Prepare Surfaces for Finishing
Unit Code	IND FMK2 06 0912
Unit Descriptor	This unit covers the knowledge, attitudes and skills required to carry-out surface preparation for finishing process.

Elements	Performance Criteria
1. Prepare for work	<p>1.1 Characteristics of the surface and the required surface coating materials are identified.</p> <p>1.2 OHS requirements, including personal protection needs, are observed throughout the work.</p> <p>1.3 Tools and equipment required are selected with related engineering controls identified and set up.</p> <p>1.4 Sources of contamination in work area are identified and excluded.</p> <p>1.5 Workplace procedures for surface preparation are identified and followed according to the surface and surface coating materials being used.</p>
2. Prepare surfaces	<p>2.1 Surfaces are prepared according to specification, surface coating materials or finishing and workplace procedures.</p> <p>2.2 Surface preparation is checked for conformity with job specifications throughout the process.</p> <p>2.3 Rectification of surface preparation faults are made as required.</p> <p>2.4 Products are inspected and approved for suitability for further processing.</p> <p>2.5 Defects are rectified and/or reported in accordance with workplace procedures.</p>
3. Clean work area and maintain equipment	<p>3.1 Prepared products are packed, stored and labeled ready for next process.</p> <p>3.2 Equipment used is cleaned and inspected for serviceable condition and stored appropriately.</p> <p>3.3 Unserviceable equipment is tagged, faults are identified and appropriate personnel are informed.</p> <p>3.4 Chemicals used are stored or disposed off correctly according to safety regulations.</p> <p>3.5 Work area is cleaned ready for next process or task.</p>

Variables	Range
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> OHS requirements include legislation, material safety management systems, hazardous substances and dangerous goods code and local safe operating procedures Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organization insurance requirements
Tools and Equipment	<p>Tools and Equipment may include but not limited to:</p> <ul style="list-style-type: none"> Measuring tapes and rulers, squares, hammer, nail punch, liquid containers, brushes, cabinet scrapers, file, oil stone, steel wool/scourers, sanding blocks, steam iron, chisels, power sanders, air compressor and hoses, fixed belt/stroke sander plane, spanners, screwdrivers, clamps, drill, mallet, vice, saw
Surfaces	<p>Surfaces to be prepared may include but are not limited to:</p> <ul style="list-style-type: none"> solid timber, manufactured board, metal

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that candidate:</p> <ul style="list-style-type: none"> Interpreted work order and locate and apply relevant information Applied safe handling requirements for equipment, products and materials, including use of personal protective equipment Followed work instructions, operating procedures and inspection practices to: <ul style="list-style-type: none"> minimize the risk of injury to self or others prevent damage to goods, equipment and products maintain required production output and product quality Prepared surfaces on a minimum of four occasions, including: <ul style="list-style-type: none"> horizontal surface vertical surface internal surface curved surface (molding) Surfaces are to include: <ul style="list-style-type: none"> solid hardwood solid softwood veneered board Work effectively with others Modify activities to cater for variations in workplace context and environment
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> The types, properties and characteristics of coatings Surface preparation techniques and equipment/ materials Hazardous substances and materials used in surface

	preparation <ul style="list-style-type: none"> • Workflow in relation to the application and removal of surface coatings
Underpinning Skills	<ul style="list-style-type: none"> • Performing surface preparation • Carry out rectification of surface faults / defects • Performing clean-up activities
Resources Implication	The following resources must be provided: <ul style="list-style-type: none"> • workplace or fully equipped assessment location with necessary tools, equipment and consumable materials
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview • Observation/Demonstration
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting

Occupational Standard: Furniture Making Level I	
Unit Title	Use and Maintain Hand and Power Tools
Unit Code	IND FMK1 07 0912
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to use and maintain hand and power tools in furniture making.

Elements	Performance Criteria
1. Select hand tools	<p>1.1 Hand tools selected are appropriate to the requirements of task.</p> <p>1.2 Unsafe or defective tools are identified and marked for repair according to procedure.</p>
2. Use hand tools	<p>2.1 Hand tools are used to produce the desired outcomes to job specifications.</p> <p>2.2 Grinding machine is used for sharpening blades</p> <p>2.3 Oil stone or grinding stone is used for sharpening blades finely.</p> <p>2.2 Task is performed in accordance with company or industry safety procedure.</p>
3. Maintain hand tools	<p>3.1 Routine maintenance of hand tools is undertaken according to standard operating procedures, principles and techniques.</p> <p>3.2 Leveling blade by its angle is carried out for operation</p> <p>3.3 Fixing of jigs is done according to working procedure.</p> <p>3.2 Hand tools are stored in designated location in accordance with manufacturer's instruction/standard operating procedure.</p>

Variable	Range
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> • Workplace health and safety requirements may include: OHS legislation, tools safety management systems, hazardous and dangerous tools codes and local safe operating procedures or equivalent • Work is carried out in accordance with legislative obligations, organization insurance requirements, environment legislation, and manual handling procedures and relevant regulations • Safe handling of tools and materials • Observance of personal safety practices
Hand tools	<ul style="list-style-type: none"> • measuring tools, cutting tools, assembling tools • hacksaws, hammers (ball peen, chipping), punches, screw-

	<p>drivers, wrenches, scrapers, chisels, gauges, files, clamps</p> <ul style="list-style-type: none"> • chisels, mallets, mortise gauges, venire calipers, vices, dovetail saws, tenon saws, coping saws, planes, files, hand drills, power drills, dowel jigs , power routers portable biscuit machines, power planers, power saws and power sanders
Task	<p>Tasks may include but not limited to:</p> <ul style="list-style-type: none"> • adjusting, dismantling, assembling, and finishing of items or components
Routine maintenance	<p>Routine maintenance may include but not limited to:</p> <ul style="list-style-type: none"> • cleaning, lubricating, tightening, simple tool repair and hand sharpening

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • selected and used hand tools appropriate to the job • performed routine maintenance and storage of hand tools
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • The types, characteristics, uses and limitations of hand tools and power tools • Workplace quality standards and procedures • Workplace safety policies and procedures • Procedures, principles and techniques in maintenance of hand and power tools • Parts and operation of hand and power tools
Underpinning Skills	<p>Demonstrates skills of:</p> <ul style="list-style-type: none"> • using / operating hand and power tools • maintaining hand and power tools • performing housekeeping
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Workplace or fully equipped assessment location with necessary tools and equipment as well as consumable material
Methods of Assessment	<p>Competence may be accessed through:</p> <ul style="list-style-type: none"> • Interview / Written exam • Observation / Demonstration
Context of Assessment	<p>Competence may be assessed individually in the actual workplace or through accredited institution</p>

Occupational Standard: Furniture Making Level I	
Unit Title	Apply Quality Standards
Unit Code	IND FMK1 08 0912
Unit Descriptor	This unit covers the skills and knowledge required in applying quality standards in furniture making.

Element	Performance Criteria
1. Assess own work	<p>1.1 Completed work is checked against workplace standards relevant to the operations being undertaken</p> <p>1.2 An understanding is demonstrated on how the work activities and completed work relate to the next construction process and to the final appearance of the construction</p> <p>1.3 Faulty pieces or final construction are identified and isolated in accordance with company policies and procedures</p> <p>1.4 Faults and any identified causes are recorded and reported in accordance with workplace procedures</p>
2. Assess quality of received articles	<p>2.1 Received materials, articles, component parts or final construction are checked against workplace standards and specifications for such things as size, color, fabric, alignment and finish</p> <p>2.2 Materials, articles or constructions are measured using the appropriate measuring instruments in accordance with workplace procedures</p> <p>2.3 An understanding is demonstrated of how the received materials or component parts relate to the current operation and how they contribute to the final appearance of the construction</p> <p>2.4 Faulty material or component parts related to the operator's work are identified and isolated</p> <p>2.5 Where required, the faults and any identified causes are recorded and/or reported to the supervisor concerned in accordance with workplace procedures</p> <p>2.6 Causes of any identified faults are identified and corrective actions are taken in accordance with workplace procedures</p>
3. Record information	<p>3.1 Materials, component parts or constructions are measured, as required, using the appropriate measuring instruments in accordance with workplace procedures</p> <p>3.2 Basic information on the quality performance is recorded</p>

	in accordance with workplace procedures 3.3 Records of work quality are maintained according to the requirements of the company
4. Study causes of quality deviations	4.1 Causes of deviations from specified final construction quality standards for materials, component parts or final construction are investigated and reported, as required, using the appropriate measuring techniques in accordance with workplace procedures 4.2 Suitable preventive action is recommended based on workplace quality standards and identified causes of deviation from specified quality standards of materials or final construction
5. Complete documentation	5.1 Information on quality and other indicators of construction performance is recorded. 5.2 All construction processes and outcomes are recorded.

Variable	Range
Quality check	<ul style="list-style-type: none"> • Visual inspection • Physical measurements • Check against design/specifications
Quality standards	<ul style="list-style-type: none"> • Materials • Component parts • Final construction • Production processes
Quality parameters	<ul style="list-style-type: none"> • Finish • Size • Durability • construction variations • Materials • Alignment • Color • Damage and imperfections
Sources of information/ documents	<p>may include but not limited to</p> <ul style="list-style-type: none"> • quality and Ethiopian standards and procedures • work instructions, patterns and designs • organization work procedures • manufacturer's instructions for materials and equipment • organizational or external personnel • customer/s requirements

Evidence Guide

<p>Critical Aspects of Competence</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • checked completed work continuously against workplace standard • identified faulty pieces or final construction • checked received materials, component parts or final construction against workplace standards • identified and applied corrective actions on the causes of identified faults • measured materials, component parts or construction • recorded basic information regarding quality performance • investigated causes of deviations of materials against standard • recommended suitable preventive actions • checked and measure the relevant quality parameters • interpreted the results of quality checks in terms of specifications, patterns and work standards • taken required action where standards of materials, component parts, final construction or work processes are found to be unacceptable • maintained accurate records
<p>Underpinning Knowledge and Attitudes</p>	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • relevant quality standards, policies and procedures • relevant construction processes, materials and products • characteristics of materials used • safety environment aspects of construction processes • relevant measurement techniques and quality checking procedures • workplace procedures • reporting procedures
<p>Underpinning Skills</p>	<p>Demonstrate skills in:</p> <ul style="list-style-type: none"> • Interpret work instructions, specifications, standards and patterns appropriate to the required work • Carry out relevant visual inspections of materials, component parts and final construction • Carry out relevant physical measurements • Maintain accurate work records in accordance with procedures • Meet work specifications • Communicate effectively within defined workplace procedures • carry out work in accordance with OH&S policies and procedures • interpret and apply defined procedures

Resource Implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> • Access to real or appropriately simulated leather garment production situations including areas, materials, equipment, and information on work specifications/patterns, relevant safety procedures and regulations, quality standards, organization procedures and customer requirements
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written exam • Observation/Demonstration
Context for Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Furniture Making Level I	
Unit Title	Work With Others
Unit Code	IND FMK1 09 0912
Unit Descriptor	This unit covers the skills, knowledge and attitudes required to develop workplace relationship and contribute in workplace activities.

Element	Performance Criteria
1. Develop effective workplace relationship	<p>1.1 Duties and responsibilities are done in a positive manner to promote cooperation and good relationship</p> <p>1.2 Assistance is sought from workgroup when difficulties arise and addressed through discussions</p> <p>1.3 Feedback provided by others in the team is encouraged, acknowledged and acted upon</p> <p>1.4 Differences in personal values and beliefs are respected and acknowledged in the development</p>
2. Contribute to work group activities	<p>2.1 Support is provided to team members to ensure workgroup goals are met</p> <p>2.2 Constructive contributions to workgroup goals and tasks are made according to organizational requirements</p> <p>2.3 Information relevant to work is shared with team members to ensure designated goals are met</p>

Variable	Range
Duties and responsibilities	<ul style="list-style-type: none"> • Job description and employment arrangements • Organization's policy relevant to work role • Organizational structures • Supervision and accountability requirements including OHS • Code of conduct
Work group	<ul style="list-style-type: none"> • Supervisor or manager • Peers/work colleagues • Other members of the organization
Feedback on performance	<ul style="list-style-type: none"> • Formal/Informal performance appraisal • Obtaining feedback from supervisors and colleagues and clients • Personal, reflective behavior strategies • Routine organizational methods for monitoring service delivery
Providing support to team members	<ul style="list-style-type: none"> • Explaining/clarifying • Helping colleagues • Providing encouragement

	<ul style="list-style-type: none"> • Providing feedback to another team member • Undertaking extra tasks if necessary
Organizational requirements	<ul style="list-style-type: none"> • Goals, objectives, plans, system and processes • Legal and organization policy/guidelines • OHS policies, procedures and programs • Ethical standards • Defined resources parameters • Quality and continuous improvement processes and standards

Evidence Guide	
Critical aspects of competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Provided support to team members to ensure goals are met • Acted on feedback from clients and colleagues • Accessed learning opportunities to extend own personal work competencies to enhance team goals and outcomes
Underpinning Knowledge	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • The relevant legislation that affects operations, especially with regards to safety • Reasons why cooperation and good relationships are important • Knowledge of the organization's policies, plans and procedures • Understanding how to elicit and interpret feedback • Knowledge of workgroup member's responsibilities and duties • Importance of demonstrating respect and empathy in dealings with colleagues • Understanding of how to identify and prioritize personal development opportunities and options
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • Ability to read and understand the organization's policies and work procedures • Write simple instructions for particular routine tasks • Interpret information gained from correspondence • Communication skills to request advice, receive feedback and work with a team • Planning skills to organized work priorities and arrangement • Technology skills including the ability to select and use technology appropriate to a task • Ability to relate to people from a range of social, cultural and ethnic backgrounds.
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Access to relevant workplace or appropriately simulated environment where assessment can take place • Materials relevant to the proposed activity or task

Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Direct observations of work activities of the individual member in relation to the work activities of the group
Context of Assessment	Competence assessment may occur in workplace or any appropriately simulated environment

Occupational Standard: Furniture Making Level I	
Unit Title	Receive and Respond to Workplace Communication
Unit Code	IND FMK1 09 0912
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to receive, respond and act on verbal and written communication.

Element	Performance Criteria
1. Follow routine spoken messages	<p>1.1 Required information is gathered by listening attentively and correctly interpreting or understanding information/instructions</p> <p>1.2 Instructions/information are properly recorded</p> <p>1.3 Instructions are acted upon immediately in accordance with information received</p> <p>1.4 Clarification is sought from workplace supervisor on all occasions when any instruction/information is not clear</p>
2. Perform workplace duties following written notices	<p>2.1 Written notices and instructions are read and interpreted correctly in accordance with organizational guidelines</p> <p>2.2 Routine written instruction are followed in sequence</p> <p>2.3 Feedback is given to workplace supervisor based on the instructions/information received</p>

Variable	Range
Written notices and instructions	<p>It refers to :</p> <ul style="list-style-type: none"> • Handwritten and printed material • Internal memos • External communications • Electronic mail • Briefing notes • General correspondence • Marketing materials • Journal articles
Organizational Guidelines	<p>It may include:</p> <ul style="list-style-type: none"> • Information documentation procedures • Company policies and procedures • Organization manuals • Service manual

Evidence Guide	
Critical aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Demonstrated knowledge of organizational procedures for handling verbal and written communications • Received and acted on verbal messages and instructions • Demonstrated competence in recording instructions/information
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • Knowledge of organizational policies/guidelines in regard to processing internal/external information • Ethical work practices in handling communications • Communication process
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • Conciseness in receiving and clarifying messages/information/communication • Accuracy in recording messages/information
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Pens • Note pads
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Direct Observation • Oral interview / Written Evaluation
Context of Assessment	<ul style="list-style-type: none"> • Competence may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions

Occupational Standard: Furniture Making Level I	
Unit Title	Demonstrate Work Values
Unit Code	IND FMK1 11 0912
Unit Descriptor	This unit covers the knowledge, skills, and attitude needed in demonstrating proper work values.

Elements	Performance Criteria
1. Define the purpose of work	<p>1.1 One's unique sense of purpose for working and the 'whys' of work are identified, reflected on and clearly defined for one's development as a person and as a member of society.</p> <p>1.2 Personal mission is in harmony with company's values</p>
2. Apply work values/ethics	<p>2.1 Work values/ethics/concepts are classified and reaffirmed in accordance with the transparent company ethical standards, policies and guidelines.</p> <p>2.2 Work practices are undertaken in compliance with industry work ethical standards, organizational policy and guidelines</p> <p>2.3 Personal behavior and relationships with co-workers and/or clients are conducted in accordance with ethical standards, policy and guidelines.</p> <p>2.4 Company resources are used in accordance with transparent company ethical standard, policies and guidelines.</p>
3. Deal with ethical problems	<p>3.1 Company ethical standards, organizational policy and guidelines on the prevention and reporting of unethical conduct are accessed and applied in accordance with transparent company ethical standard, policies and guidelines.</p> <p>3.2 Work incidents/situations are reported and/or resolved in accordance with company protocol/guidelines.</p> <p>3.3 Resolution and/or referral of ethical problems identified are used as learning opportunities.</p>
4. Maintain integrity of conduct in the workplace	<p>4.1 Personal work practices and values are demonstrated consistently with acceptable ethical conduct and company's core values.</p> <p>4.2 Instructions to co-workers are provided based on ethical, lawful and reasonable directives.</p> <p>4.3 Company values/practices are shared with co-workers using appropriate behavior and language.</p>

Variable	Range
Work values/ethics/concepts	May include but are not limited to: <ul style="list-style-type: none"> • Commitment/ Dedication • Sense of urgency • Sense of purpose • Love for work • High motivation • Orderliness • Reliability and Dependability • Competence • Goal-oriented • Sense of responsibility • Being knowledgeable • Loyalty to work/company • Sensitivity to others • Compassion/Caring attitude • Balancing between family and work • Sense of nationalism
Work practices	<ul style="list-style-type: none"> • Quality of work • Punctuality • Efficiency • Effectiveness • Productivity • Resourcefulness • Innovativeness/Creativity • Cost consciousness • 5S • Attention to details
Incidents/situations	<ul style="list-style-type: none"> • Violent/intense dispute or argument • Gambling • Use of prohibited substances • Pilferages • Damage to person or property • Vandalism • Falsification • Bribery • Sexual Harassment • Blackmail
Company resources	<ul style="list-style-type: none"> • Consumable materials • Equipment/Machineries • Human • Time • Financial resources
Instructions	<ul style="list-style-type: none"> • Verbal • Written

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Defined one's unique sense of purpose for working • Clarified and affirmed work values/ethics/concepts consistently in the workplace • Demonstrated work practices satisfactorily and consistently in compliance with industry work ethical standards, organizational policy and guidelines • Demonstrated personal behavior and relationships with co-workers and/or clients consistent with ethical standards, policy and guidelines • Used company resources in accordance with company ethical standard, policies and guidelines. • Followed company ethical standards, organizational policy and guidelines on the prevention and reporting of unethical conduct/behavior
Underpinning Knowledge	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • Occupational health and safety • Work values and ethics • Company performance and ethical standards • Company policies and guidelines • Fundamental rights at work including gender sensitivity • Work responsibilities/job functions • Corporate social responsibilities • Company code of conduct/values • Balancing work and family responsibilities
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • Interpersonal skills • Communication skills • Self-awareness, understanding and acceptance • Application of good manners and right conduct
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Workplace or assessment location • Case studies/Scenarios
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview • Third Party Reports
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Furniture Making Level I	
Unit Title	Develop Understanding of Entrepreneurship
Unit Code	IND FMK1 12 0912
Unit Descriptor	This unit covers skills, knowledge and attitude required to understand the principles, functions, strategies and methods of entrepreneurship. It also covers identifying and developing the major entrepreneurial competences.

Elements	Performance Criteria
1. Describe and explain the principles, concept and scope of entrepreneurship	1.1 The principles, concept and terminology of entrepreneurship are analyzed and discussed 1.2 The different / various forms of enterprises in the community are identified and their roles understood 1.3 The identified enterprises are categorized and classified 1.4 The terms and elements involved in the concept of enterprising, both on a personal level and in the context of being enterprising in business are identified and interpreted 1.5 Functions of entrepreneurship in business and how the entrepreneurs improved business and economic environment are explained
2. Discuss how to become entrepreneur	2.1 Self-employment as an alternative option for an individual economic independence and personal growth is discussed and analyzed 2.2 Advantages and disadvantages of self-employment are discussed and explained 2.3 Entrepreneurial characteristics and traits are identified and discussed 2.4 Self-potential is assessed to determine if qualified to become future entrepreneur 2.5 Major competences of successful entrepreneurship are identified and explained
3. Discuss how to organize an enterprise	3.1 The importance and role of business entrepreneurship in the society are discussed and correlated to the operations of the economy 3.2 Facts about small and medium enterprises are discussed, clarified and understood 3.3 Key success factor in setting up small and medium business are identified and explained

	<p>3.4 Business opportunities are identified and assessed</p> <p>3.5 Business ideas are generated using appropriate tools, techniques and steps</p> <p>3.6 Procedures for identifying suitable market for business are discussed and understood</p> <p>3.7 Major factors to consider in selecting a location for a business are identified and discussed</p> <p>3.8 Basic types of business ownership are identified and explained</p> <p>3.9 Amount of money needed to start an enterprise estimated and distinction between pre operations and initial operation payments clarified</p> <p>3.10 Advantages and disadvantages of using various sources of capital to start an enterprise are identified</p>
<p>4. Discuss how to operate an enterprise</p>	<p>4.1 Disadvantages and advantages of three alternative means of becoming an entrepreneur are identified and understood</p> <p>4.2 Process of hiring and managing people is discussed and explained</p> <p>4.3 The importance and techniques of managing time are discussed and understood</p> <p>4.4 The techniques and procedures of managing sales are discussed and explained</p> <p>4.5 Factors to consider in selecting suppliers and the steps to follow when doing business with them are identified and discussed</p> <p>4.6 Awareness of how new technologies can affect small and medium business are developed</p> <p>4.7 Characteristics of appropriate technology for use in small and medium business are identified and explained</p> <p>4.8 Different types of cost that occur in a business and how to manage them are discussed and understood</p> <p>4.9 Factors and procedures in knowing the cost of the enterprise are discussed and understood</p> <p>4.10 Importance of financial record keeping and preparing simple financial statement are explained and understood</p> <p>4.11 The application of self-management skills and negotiation skills are discussed in operating a business</p> <p>4.12 Risk assessment and management of business enterprise are performed</p>

5. Develop one's own business plan	5.1 Process of preparing/ writing a business plan is discussed and applied 5.2 Standard structure and format are applied in preparing business plan 5.3 Findings of the business plan are interpreted, assessed and analyzed 5.4 Feasibility of the business idea is made clear and understandable 5.5 Problems that may arise or encounter when starting a business are identified and understand 5.6 Techniques and procedures in obtaining and sourcing information are discussed and understood
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Variables	Range
Classification	<ul style="list-style-type: none"> • Private vs. public • Profit vs. non-profit • Formal vs. Non-formal • Individual vs. Community • Local vs. Foreign • Business vs. Social • Small vs. Large • Manufacturing vs. Service • Consumer vs. Industrial
Major factors	<ul style="list-style-type: none"> • Economics (local economy) • Population • Competition
Three alternative	<ul style="list-style-type: none"> • Buying an existing business • Starting a new business • Operating a franchising business

Evidence Guide	
Critical Aspects of Competence	Assessment requires evidence that the candidate: <ul style="list-style-type: none"> • explained principles and concept of entrepreneurship • discussed how to become entrepreneur • discussed how to organize an enterprise • discussed how to operate an enterprise • develop business plan
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> • Entrepreneurship principles, concepts and terminologies • Entrepreneurial competence • Entrepreneurial motivation • Risk assessment and evaluation • Principles and process of negotiations

	<ul style="list-style-type: none"> • Self-management and self-employment • Managing sales, people and time • Factors in setting up small and medium business • Small and Medium Enterprise • Business plan development • Discussion techniques and procedures
Underpinning Skills	<p>Demonstrate skills in:</p> <ul style="list-style-type: none"> • Planning and Leading • Presentation skills • Using technology • Managing money • Preparing simple financial statement • Selecting suppliers
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Tools, equipment and facilities appropriate to the proposed activities • Materials relevant to the proposed activities
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview/Written Test • Demonstration/ Direct Observation with Oral Questioning
Context of Assessment	<p>Competence may be assessed in the workplace or in a simulated workplace setting</p>

Occupational Standard: Furniture Making Level I	
Unit Title	Apply 5S Procedures
Unit Code	IND FMK3 13 1012
Unit Descriptor	This unit of competence covers the skills, attitudes and knowledge required by an employee or worker to apply 5S procedures (structured approach to housekeeping) to their own job and work area and maintains the housekeeping and other standards set by 5S. The unit assumes the employee or worker has a particular job and an allocated work area and that processes in the work area are known by the individual.

Elements	Performance Criteria
1. Develop understanding of quality system	1.1 Discuss quality assurance procedures of the enterprise or organization 1.2 Understand the relationship of quality system and continuous improvement in the workplace 1.3 Identify and relate to workplace requirements the purpose and elements of quality assurance (QA) system 1.4 Explain the 5S system as part of the quality assurance of the work organization
2. Sort needed items from unneeded	2.1 Identify all items in the work area 2.2 Distinguish between essential and non-essential items 2.3 Sort items to achieve deliverables and value expected by downstream and final customers 2.4 Sort items required for regulatory or other required purposes 2.5 Place any non-essential item in a appropriate place other than the workplace 2.6 Regularly check that only essential items are in the work area
3. Set workplace in order	3.1 Identify the best location for each essential item 3.2 Place each essential item in its assigned location 3.3 After use immediately return each essential item to its assigned location 3.4 Regularly check that each essential item is in its assigned location
4. Shine work area	4.1 Keep the work area clean and tidy at all times

	<p>4.2 Conduct regular housekeeping activities during shift</p> <p>4.3 Ensure the work area is neat, clean and tidy at both beginning and end of shift</p>
5. Standardize activities	<p>5.1 Follow procedures</p> <p>5.2 Follow checklists for activities, where available</p> <p>5.3 Keep the work area to specified standard</p>
6. Sustain 5S system	<p>6.1 Clean up after completion of job and before commencing next job or end of shift</p> <p>6.2 Identify situations where compliance to standards is unlikely and take actions specified in procedures</p> <p>6.3 Inspect work area regularly for compliance to specified standard</p> <p>6.4 Recommend improvements to lift the level of compliance in the workplace</p>

Variable	Range
Elements of QA system	<ul style="list-style-type: none"> • corrective action • mission statements • monitoring procedures • SOPs • work instructions • PDCA concept
5S	<p>5S is a system of work organization originally developed in Japan based around housekeeping principles. A close translation of the five stages in the housekeeping approach is:</p> <ul style="list-style-type: none"> • sort • set in order • shine • standardize • sustain <p>Japanese terms:</p> <ul style="list-style-type: none"> • seiri - eliminating everything not required for the work being performed (sort) • seiton - efficient placement and arrangement of equipment and material (set in order) • seison - tidiness and cleanliness (shine) • seiketsu - ongoing, standardised, continually improving seiri, • seiton, seison • shitsuke - discipline with leadership

Items in the work area	<p>Includes:</p> <ul style="list-style-type: none"> • tools • jigs/fixtures • materials/components • plant and equipment • manuals • personal items (e.g. bags, lunch boxes and posters) • safety equipment and personal protective equipment • other items which happen to be in the work area
Sort	<p>Sort involves keeping only what is absolutely necessary for the processes in the work area. Sort includes:</p> <ul style="list-style-type: none"> • clearing the work area of all non-essential equipment and materials <p>Non-essential items are those not required to either produce product, conduct process or operations, or make required adjustments to equipment during process or operations</p>
Set in order	<p>After removing unnecessary materials, the remaining materials must be those that are required immediately for either the machine or the job at hand. All of these materials/change/parts etc must have an assigned location on the production floor.</p> <p>Locations should be clearly marked and labeled to show what belongs where. assigning required equipment and materials appropriate locations in the work area</p>
Shine	<p>includes:</p> <ul style="list-style-type: none"> • keeping the work area clean at all times • this should be carried out to a regular daily schedule against allowed time and, on most occasions, at the end of a job
Standardize	<p>Once 5S is established, standardizing activities help maintain the order and the housekeeping standards. Standardizing may use procedures and checklists developed from a procedure. Standardizing includes:</p> <ul style="list-style-type: none"> • activities that help maintain the order and the housekeeping standards • using procedures and checklists developed from a procedure • OHS measures such as signage, symbols / coding and labeling of work area and equipment
Procedures	<p>Procedures may include:</p> <ul style="list-style-type: none"> • work instructions • standard operating procedures • formulas/recipes • batch sheets • temporary instructions and similar instructions provided for the operation of the plant • good operating practice as may be defined by industry

	<p>codes of practice (e.g. good manufacturing practice (GMP) and responsible care) and government regulations</p> <p>Procedures may be:</p> <ul style="list-style-type: none"> • written, verbal, computer based or in some other format
Sustain	<p>includes:</p> <ul style="list-style-type: none"> • making sure that daily activities are completed every day regardless of circumstance • cleaning up after a job • undertaking inspections, including: <ul style="list-style-type: none"> – informal inspections carried out often, at least weekly – formal inspections carried out at least monthly • generating continuous improvement actions from daily activities • following up specific actions to generate continuous improvement

Evidence Guide	
Critical Aspects of Competence	<p>A person who demonstrates competence in this unit must be able to provide evidence of the ability to:</p> <ul style="list-style-type: none"> • identify own tasks and responsibilities and relate them to organization and customer requirements • identify and explain the stages of 5S • implement 5S in own work area • identify waste (muda) in the work area • routine practice of 5S as part of their job
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • operations and processes relevant to own job • basic principle of quality assurance system and its elements • quality procedures and continuous improvement (kaizen) • meaning and application of 5S steps to own job and work area • principles of efficient workplace organization • purposes of 5S • methods of making/recommending improvements
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • communicating with others to clarify issues during 5S implementation, communicate results and contribute suggestions for improvement • visualizing operations in terms of flow and contribution to customer outcomes • planning own tasks in implementation of 5S • implementing 5S in own work area according to instructions • identifying waste (muda) • organizing, prioritizing activities and items • reading and interpreting documents describing procedures • recording activities and results against templates and other

	<p>prescribed formats</p> <ul style="list-style-type: none"> • working with others • solving problems
Resources Implication	<p>Access may be required to:</p> <ul style="list-style-type: none"> • workplace procedures and plans relevant to work area • specifications and documentation relating to planned, currently being implemented, or implemented changes to work processes and procedures relevant to the candidate • documentation and information in relation to production, waste, overheads and hazard control/management • reports from supervisors/managers • case studies and scenarios to assess responses to contingencies
Methods of Assessment	<p>A holistic approach should be taken to the assessment. Competence in this unit may be assessed by using a combination of the following to generate evidence:</p> <ul style="list-style-type: none"> • demonstration in the workplace • workplace projects • suitable simulation • case studies/scenarios (particularly for assessment of contingencies, improvement scenarios, and so on) • targeted questioning <p>In all cases it is expected that practical assessment will be combined with targeted questioning to assess underpinning knowledge.</p>
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting. Assessment of performance must be undertaken in a workplace using or implementing 5S as competitive systems and practices.</p>

NTQF Level II

Occupational Standard: Furniture Making Level II	
Unit Title	Perform Equipment Maintenance
Unit Code	IND FMK2 01 0912
Unit Descriptor	This unit covers the knowledge, attitudes and skills required in carrying out basic routine maintenance.

Elements	Performance Criteria
1. Prepare for work	<p>1.1 Tools and supplies required to carry out basic routine maintenance tasks are identified, selected and provided on site according to supervisor's instructions.</p> <p>1.2 Routine pre-operational checks of machinery and equipment are carried out and adjustments made according to manufacturer's specifications and/or enterprise procedures.</p> <p>1.3 Faulty or unsafe machinery and equipment are identified and segregated for repair or replacement according to enterprise requirements.</p> <p>1.4 OHS hazards in the workplace are identified and reported to the supervisor.</p>
2. Carry out basic routine maintenance	<p>2.1 Suitable personal protective equipment is stored, selected, used and maintained according to OHS requirements.</p> <p>2.2 Greasing, lubrication and other basic servicing of machinery and equipment is carried out according to operator's manual/manufacturers specifications and supervisor's instructions.</p> <p>2.3 Routine adjustments and repairs are made to machinery and equipment according to operators' manual/manufacturers' specifications and supervisors instructions.</p> <p>2.4 Work is conducted according to OHS requirements and completed to supervisor's satisfaction.</p>
3. Complete work	<p>3.1 Tools are cleaned, returned to operating order and stored according to manufacturers' specifications and enterprise requirements.</p> <p>3.2 Environmental procedures are followed and waste from maintenance activities is collected, treated and disposed or recycled according to enterprise requirements.</p> <p>3.3 Work area is cleaned and maintained according to OHS and enterprise requirements.</p> <p>3.4 Malfunctions, faults, wear or damage to tools are reported to the supervisor according to enterprise requirements.</p>

Variables	Range
Tools and Equipment	It may include but not limited to: <ul style="list-style-type: none"> • Hand tools, personal protective equipment, hand held power tools, grease guns, cleaning and maintenance supplies including grease, fuel, oil, chemicals, water steam, power and air.
Basic routine maintenance	It may include but not limited to: <ul style="list-style-type: none"> • Dismantling and assembling, testing, tightening, minor adjustments and repairs, and routine servicing procedures including lubricating, and checks of cooling system, fuel, grease and oil, and battery levels.
Supervisor's instructions	It may include but not limited to: <ul style="list-style-type: none"> • Verbal or written communication.
Routine pre-operational checks	It may include but not limited to: <ul style="list-style-type: none"> • Routine safety and pre-start checks and preparatory procedures including cleaning, lubricating, hand sharpening, priming pumps, clearing filters, tightening, basic repairs and adjustments.
Enterprise requirements	It may include but not limited to: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes and plans, product labels, manufacturers specifications, operators' manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), and supervisors oral or written instructions.
OHS requirements	<ul style="list-style-type: none"> • OHS requirements are to be in accordance with legislation/regulations/codes of practice, organizational safety policies and procedures and project safety plan. This may include protective clothing and equipment, use of tools and equipment, workplace environment and safety, handling of materials, use of firefighting equipment, organizational first aid, hazard control and hazardous materials and substances • Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with power cables, trip hazards, working with dangerous materials, working in confined spaces, working in proximity to others, worksite visitors and the public • Emergency procedures related to this unit are to include but may not be limited to extinguishing fires, organizational first aid requirements and evacuation
Personal protective equipment	It may include but not limited to: <ul style="list-style-type: none"> • Overalls, gloves, protective eyewear, hearing protection, safety harness, etc.
Environmental	It may include but not limited to: <ul style="list-style-type: none"> • Measures to reduce excessive noise and exhaust emissions, the safe use and disposal of maintenance debris including oil containers, fuel and chemical residues.

Materials	May include but not limited to: stationeries , grease, fuel, oil, chemicals, water steam, power and air, overalls, gloves, protective eyewear, hearing protection, safety harness, etc.
Tools and Equipment	May include but not limited to: hand tools, personal protective equipment, hand held power tools, grease guns and different machinery maintenance equipment

Evidence Guide	
Critical Aspects of Competence	Assessment requires evidence that the candidate: <ul style="list-style-type: none"> • prepared for basic routine maintenance • carried out basic routine maintenance • completed basic routine maintenance activities
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • Workplace and equipment safety requirements • Quality requirements and safe work methods • General Construction terminology • Types, characteristics, uses and limitations of equipment involved in furniture making operations • Types, characteristics and functions of tools used in maintenance of machinery and equipment • The method of operation and maintenance requirements of furniture making equipment • Codes of Practice with regard to the use and control of hazardous substances and/or working in confined spaces. • Environmental Codes of Practice with regard to maintenance activities.
Underpinning Skills	<ul style="list-style-type: none"> • Preparing for basic routine maintenance • Carrying out basic routine maintenance • Completing basic routine maintenance activities
Resources Implication	The following resources must be provided: variety of information, communication tools, simulated workplace
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview • Observation/Demonstration
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting

Occupational Standard: Furniture Making Level II	
Unit Title	Set-up and Operate Woodworking Machines
Unit Code	IND FMK2 02 0912
Unit Descriptor	This unit covers the skills, attitudes and knowledge required in setting-up and operating different machines in the production of furniture.

Elements	Performance Criteria
1. Prepare for work	<p>1.1 Work instructions are used to determine job requirements, including design, quality, materials, equipment, and quantities.</p> <p>1.2 Cutting list and job specifications are read and interpreted.</p> <p>1.3 Workplace health and safety requirements, including personal protection needs, are observed throughout the work.</p> <p>1.4 Material for machining is selected and inspected for quality</p> <p>1.5 Joining machines, cutting tools and jigs are identified and checked for safe and effective operation.</p> <p>1.6 Procedures are determined for minimizing waste material.</p> <p>1.7 Procedures are identified for maximizing energy efficiency while completing the job.</p>
2. Set-up machines	<p>2.1 Safety equipment, including emergency stops, gauges, guards and controls are checked.</p> <p>2.2 Machine settings and adjustments are made in accordance with job requirements and machine and tool manufacturer instructions.</p> <p>2.3 Trial runs are conducted to check machine operation, accuracy and quality of finished work.</p> <p>2.4 Necessary adjustments are made to machine settings.</p>
3. Operate machines	<p>3.1 Machine start-up procedure is carried out in accordance with manufacturers' instructions.</p> <p>3.2 Material is fed into machine in accordance with manufacturers' instructions, tooling requirements, safe handling procedures and standard workplace operating procedures.</p> <p>3.3 Machine is operated in accordance with its designed capacity and purpose and to manufacturers' recommendation.</p>

	<p>3.4 Machine operation is monitored to ensure product quality and output.</p> <p>3.5 Waste quantities are checked and minimized.</p> <p>3.6 Items that do not meet quality requirements are recycled or discarded according to workplace procedures.</p> <p>3.7 Problems with required work and/or operation of machine are identified and reported to appropriate persons.</p>
4. Clean up work area	<p>4.1 Material that can be reused is collected and stored.</p> <p>4.2 Waste and scrap are removed following workplace procedures.</p> <p>4.3 Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures.</p>

Variables	Range
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> • OHS requirements include legislation, material safety management systems, hazardous substances and dangerous goods code and local safe operating procedures • Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organization insurance requirements
Tools and Equipment	<ul style="list-style-type: none"> • Tools and equipment are to include: machine-specific tools and tension wrenches and may include: screwdrivers, hammers, spanners, jigs and fixtures and joining machine • Machine may include but not limited to: <ul style="list-style-type: none"> ▪ Automated edge banding machines, ▪ Mechanical wood turning lathes, ▪ Routing and shaping machines ▪ pressure and clamping machines, ▪ Joining machines
Materials	<p>Materials may include but not limited to:</p> <ul style="list-style-type: none"> • joining machine consumables, oils and lubricants and trial materials

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Interpreted work order and locate and apply relevant information • Applied safe handling requirements for equipment, products and materials, including use of personal protective equipment • Read and interpreted cutting lists and job specifications

	<ul style="list-style-type: none"> • Identified materials used in the work process • Follow work instructions, operating procedures and inspection processes to - minimize the risk of injury to self or others • Prevented damage and wastage of materials, equipment and products • Maintained required production output and product quality • Identify, set up, operate to their full capacities at least two different types of joining machines (mortise and tenon and dovetail), including the use of safety cut-outs and guards and their application of the machines to a variety of materials • Conduct operator maintenance on the machines and related equipment • Work effectively with others • Modify activities to cater for variations in workplace context and environment
Required Knowledge and Attitudes	<ul style="list-style-type: none"> • Types, characteristics, uses and limitations of Wood working machines • Joining processes and techniques • Characteristics of materials and uses of products produced • Workplace guidelines regarding acceptable tolerance levels • Workplace safety policies and procedures • Characteristics of machines and operating procedures • Procedures for reporting machinery faults and material defects
Underpinning Skills	<ul style="list-style-type: none"> • Setting up woodworking machines • Operating woodworking machines • Observing OHS measures and procedures • Cleaning workplace after operations
Resources Implication	The following resources must be provided: variety of information, communication tools, simulated workplace
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview • Observation/Demonstration
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting

Occupational Standard: Furniture Making Level II	
Unit Title	Produce Furniture Components and Fixtures
Unit Code	IND FMK2 03 0912
Unit Descriptor	This unit describes the skills, attitudes and knowledge required to fabricate furniture component parts. It includes preparing materials, lay-outting, fabrication and assembling component parts.

Elements	Performance Criteria
1. Prepare materials for fabrication of component parts	<p>1.1 Appropriate PPE is selected and used according to job requirements and OSHC specifications.</p> <p>1.2 Working drawings are interpreted according to job requirements.</p> <p>1.3 Materials, hand and power tools and equipment are selected and prepared consistent with job requirements.</p> <p>1.4 Materials are re-checked and properly staged according to job requirements otherwise defective materials or not in specifications are reported to immediate superior.</p> <p>1.5 Unexpected situations are responded to in line with company rules and regulations.</p> <p>1.6 Housekeeping is performed according to safety regulations.</p>
2. Lay-out dimension of furniture component parts	<p>2.1 Furniture component parts are measured and marked according to job specifications.</p> <p>2.2 Furniture component parts are laid out and cut with given dimension.</p> <p>2.3 Unexpected situations are responded to in line</p> <p>2.4 With company rules and regulations.</p> <p>2.5 Housekeeping is performed according to safety regulations.</p>
3. Assemble furniture component parts	<p>3.1 Materials and/or fabricated furniture component parts are correctly positioned for assembly.</p> <p>3.2 Assembled furniture component parts are checked for squareness, levelness and specified tolerance based on specification.</p> <p>3.3 Temporary fixing and/or permanent assembly techniques are applied as per job requirements.</p>

	<p>3.4 Assembled furniture component parts are checked for compliance with job requirements.</p> <p>3.5 Unexpected situations are responded to in line with company rules and regulations</p> <p>3.6 Clean up work area is performed according to safety regulations and OSHC specifications.</p> <p>3.7 Daily work report is accomplished in accordance with enterprise rules and regulations.</p>
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Variables	Range
Personal protective equipment (PPE)	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> • Goggles / Dust mask • Gloves • Safety shoes • Working clothes
Materials	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • plywood • timber, chip wood, manufacturing materials (MDF) • nails and screws • dowels • adhesives
Power and hand tools and equipment	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> • Power tool/equipment <ul style="list-style-type: none"> ▪ Circular saw ▪ Electric drill ▪ radial saw ▪ Jig saw ▪ Wood working machine • Hand tools <ul style="list-style-type: none"> ▪ Claw hammer ▪ Push-pull/zigzag rule ▪ Chisel ▪ Steel square ▪ Hand saw ▪ Try square ▪ Marking gauge ▪ Screw drivers ▪ Clamps
Unexpected situations	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Injury to personnel • Damage to materials
Component parts	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Plate • Bottom • Top • Panel • Skeleton parts

Evidence Guide	
Critical Aspects of Competence	<p>Competence assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • interpreted working drawings with details • selected and prepared materials, power and hand tools, equipment and PPE consistent with job requirements • used safe and effective power and hand tools • laid out according to specified dimension • assembled component parts are checked for compliance with the job requirements and specified tolerances • applied organizational quality procedures and processes • completed work without damage to materials or injury to personnel
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • Types and uses of PPE • Mensuration • Interpretation of working drawing and details • Materials, power and hand tools and equipment uses and specifications • Knowledge of furniture component fabrication procedures • Economic use of material • Safe and effective use of power and hand tools • Company rules and regulations
Underpinning Skills	<ul style="list-style-type: none"> • Using PPE • Applying Mensuration • Interpreting related drawings and details • Following fabrication procedures • Following safe and effective use of power and hand tools • Using materials economically • Communicating effectively • Following company rules and regulations
Resources Implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Workplace or fully equipped assessment location with necessary tools, equipment and consumable materials
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview • Observation/Demonstration
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Furniture Making Level II	
Unit Title	Assemble Furniture Components and Fixtures
Unit Code	IND FMK2 04 0912
Unit Descriptor	This unit contains the knowledge, attitudes and skills required to assemble timber and manufactured components to produce furniture frames, components and / or furniture.

Element	Performance criteria
1. Prepare for assembly works	<p>1.1 Work instructions are used to determine job requirements, including design, tolerances, process, materials, finish and quantity.</p> <p>1.2 Suitable work area is selected for the task.</p> <p>1.3 Assembly sequence is planned following work procedure.</p> <p>1.4 Procedures are determined for checking quality at each stage of the process.</p> <p>1.5 Workplace health and safety requirements are observed throughout the work.</p> <p>1.6 Tools and equipment suitable to the fixing method are selected and checked for safe operation.</p> <p>1.7 Components, hardware, fittings and attachments are collected and made ready for use.</p> <p>1.8 Fixing and joining devices are selected in line with work instructions and type of materials to be joined.</p> <p>1.9 Jigs are selected and checked for suitability of purpose.</p>
2. Assemble components	<p>2.1 Components are laid out and joined using jigs and appropriate fastenings.</p> <p>2.2 Hand and/or power tools and equipment are used as required.</p> <p>2.3 Assembled frame is checked for compliance with specifications.</p> <p>2.4 Components are prepared, assembled and fitted as per specification.</p> <p>2.5 Frames which do not meet quality specifications are repaired or tagged for further processing or recycling/disposal.</p> <p>2.6 Finished products are organized and stored in holding area.</p>

3. Secure assembled components	<p>3.2 Faulty an/or defective equipment is tagged and reported in accordance with workplace procedures.</p> <p>3.3 Waste and scrap are removed following workplace procedures.</p> <p>3.4 Tools and equipment used are cleaned, inspected for serviceable condition and storage requirement is appropriately in accordance with workplace procedures.</p> <p>3.5 Equipment and work area clean-up is maintained in accordance with workplace procedures.</p>
4. Clean up	<p>4.1 Faulty and/or defective equipment is tagged and reported in accordance with workplace procedures.</p> <p>4.2 Waste and scrap are removed following workplace procedures.</p> <p>4.3 Tools and equipment used are cleaned, inspected for serviceable condition and stored appropriately in accordance with workplace procedures.</p> <p>4.4 Equipment and work area clean-up is maintained in accordance with workplace procedures.</p>

Variables	Range
Health and safety requirements	<ul style="list-style-type: none"> • include legislation, material safety management systems, hazardous substances and dangerous goods code and local safe operating procedures • work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organization insurance requirements
Materials	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Timber (wood) • Glues • Nails and Screws • Dowels • Knock-down fittings • Manufactured board
Tools and Equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • measuring tapes or rulers, hammers, mallets, squares, bevels, chisels, planes, hand saws, power saws, power drills/ screwdrivers, clamps, screwdrivers, pincers, pneumatic tools
Storage requirements	<p>Storage of finished products must ensure that there is no obstruction to traffic, components are not damage in storage, incompatible items are not stored together, and products are arranged to match the sequence of work.</p>

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that candidate:</p> <ul style="list-style-type: none"> • Interpreted work order and locate and apply relevant information • Applied safe handling requirements for equipment, products and materials, including use of personal protective equipment • Followed work instructions, operating procedures and inspection practices to: <ul style="list-style-type: none"> - minimize the risk of injury to self or others - prevent damage to goods, equipment and products - maintain required production output and product quality • Worked effectively with others • Modified activities to cater for variations in workplace context and environment
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • The types, characteristics, uses and limitations of common furniture components • The interpretation of basic furniture plans • Identification of hand and/or power tools, materials, equipment, processes and procedures • Workflow in relation to furniture production
Underpinning Skills	<ul style="list-style-type: none"> • Reading plans and technical drawing • Interpreting specifications • Assembling components • Leaning workplace • Maintaining equipment and tools
Resources Implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Workplace or fully equipped assessment location with necessary tools, equipment and consumable materials
Assessment Methods	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview • Observation/Demonstration
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Furniture Making Level II	
Unit Title	Apply Finishing Touches
Unit Code	IND FMK2 05 0912
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to apply finishing touches to the furniture product.

Element	Performance criteria
1. Plan and prepare for work	<p>1.1 Work requirements on basic project are correctly identified from drawings/ specifications/ instructions.</p> <p>1.2 Quality assurance requirements are recognized and adhered to in accordance with enterprise operation.</p> <p>1.3 OHS and PPE requirements are recognized and adhered to in accordance with enterprise operation.</p> <p>1.4 Tools, equipment and materials selected are consistent with job requirements and work instructions, checked for safety and serviceability and any faults reported to supervisor.</p>
2. Prepare surface ;and materials for finishing process	<p>2.1 Surfaces are checked for contamination and correct preparation according to workplace procedures and standards.</p> <p>2.2 Products with surface or other faults are identified and faults are reported or repaired according to workplace procedures and standards.</p> <p>2.3 Techniques for application of materials for finishing process are identified and used according to workplace procedures.</p> <p>2.4 Materials suitable for basic surface finishing are prepared.</p>
3. Color /stain is applied to product surface	<p>3.1 Stain is applied to timber surfaces in accordance with manufacturers' specifications and workplace procedures and standards.</p> <p>3.2 Stained surface is sealed with polish using mop brush, blender or swooge</p> <p>3.3 Sealed surface is lightly sanded to make smooth</p> <p>3.4 Wood filler or sanding sealer is applied in accordance with manufacturers' specifications and workplace procedures and standards.</p> <p>3.5 Filled-n surface is sealed with oil varnish in accordance with manufacturers' specifications and workplace procedures and standards.</p>

	3.6 Sealed surface is lightly sanded to make smooth.
4. Apply finishing material	<p>4.1 Finishing materials is applied in accordance with manufacturers' specifications until required build is achieved.</p> <p>4.2 Finishing material is cut back to remove surface defects and/or foreign material in accordance with workplace procedures .</p> <p>4.3 Surface is burnished with fine steel wool and lubricating oil to achieve even sheen.</p>
5. Clean up	<p>5.1 Workplace is cleared of debris and unused materials</p> <p>5.2 Wood filler and lubricating oil rags are disposed of safely having regards for spontaneous combustion.</p> <p>5.3 Tools and equipment are cleaned, maintained and stored</p>

Variables	Range
A basic project may include:	<ul style="list-style-type: none"> • The coating of tables (occasional, coffee) • Chairs or stools and other furnishing items
OHS requirements may include:	<ul style="list-style-type: none"> • Legislation • Building codes • Material safety management systems • Hazardous and dangerous goods codes, and • Local safe operating procedures or equivalent. • Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organization insurance requirements. • Work requires individual to demonstrate some discretion, judgment and problem solving skills in the accurate application of polish
Stains	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Water stain • Pigment oil stain • knots, and • blister
Tools and Equipment may include:	<ul style="list-style-type: none"> • Filler blades • Brushes • Spray equipment • Mop brush • Blender • Sandpapers • Swooge • Bodying up and spiriting out rubbers Skinning in • Scraper
Personal protective equipment	Personal protective equipment is to include the prescribed under legislation, regulations and enterprise policies and practices

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that candidate:</p> <ul style="list-style-type: none"> • Interpreted work order and locate and apply relevant information • Applied safe handling requirements for equipment, products and materials, including use of personal protective equipment • Followed work instructions, operating procedures and inspection practices to: <ul style="list-style-type: none"> - minimize the risk of injury to self or others - prevent damage to goods, equipment and products - maintain required production output and product quality - Complete an approved project to apply coatings to surfaces within the criteria listed in the Range Statement - Work Modify activities to cater for variations I n workplace contexts
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • Characteristics, limitations and uses of coating materials required for the project. • Coating application equipment, techniques and safe working procedures. • Basic repair techniques to defects in wood surfaces • Safe handling of materials associated with applying coatings.
Underpinning Skills	<ul style="list-style-type: none"> • Information. Collect, organize and understand information related to materials, work orders, plans and safety procedures. • Communication. Communicate ideas and information to enable confirmation of work requirements and specifications, co-ordination of work and the reporting of work outcomes and problems. • Planning. Plan and organize activities, including the preparation and the obtaining of equipment and materials to avoid any back tracking, workflow interruptions or wastage • Teamwork. Work with others and in a team by recognizing dependencies and using cooperative approaches. • Mathematical ideas and techniques. Use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements. • Solve problems. Use pre-checking and inspection techniques to anticipate coating problems, avoid reworking and avoid wastage. • Use of technology. Use limited workplace technology related to coating.
Resources Implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Workplace or fully equipped assessment location with necessary tools, equipment and consumable materials

	such as - coating materials, wood components/furniture requiring finishing and cleaning materials.
Assessment Methods	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Oral questioning • Observation/Demonstration with questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting

Occupational Standard: Furniture Making Level II	
Unit Title	Apply Sheet Laminates by Hand
Unit Code	<u>IND FMK2 06 0912</u>
Unit Descriptor	This unit covers the competency to apply laminates by hand, including the preparation, layout application and finalization processes.

Element	Performance criteria
1. Prepare for work	<p>1.1 Work instructions are used to determine job requirements, including; process, materials, finish and quantity.</p> <p>1.2 Application is planned.</p> <p>1.3 Procedures are determined for checking quality at each stage of the process..</p> <p>1.4 Workplace health and safety requirements, including personal protection needs, are observed throughout the work.</p> <p>1.5 Suitable joining processes are selected and prepared.</p>
2. Layout and prepare materials	<p>2.1 Laminates are selected and checked for flaws following work instructions</p> <p>2.2 Laminates are prepared for application and laid out.</p> <p>2.3 Suitable joining processes are selected and prepared.</p>
3. Apply and/or fit and finish	<p>3.1 Laminates are measured, marked and cut to size and applied to the base materials.</p> <p>3.2 Tools and equipment are used in accordance with workplace procedures, including use of personal protective equipment.</p> <p>3.3 Adhesives are applied according to workplace procedures and/or manufacturers' instructions.</p> <p>3.4 Final trim and finishing are completed to specifications.</p> <p>3.5 Work is checked against required quality standards.</p>
4. Finalize operation and clean up	<p>4.1 Work are is cleaned, hand and./or power tools and equipment are cleaned, maintained and stored in accordance with workplace procedures.</p> <p>4.2 Tools and equipment are cleaned and left in a safe mode.</p> <p>4.3 Faulty and/or defective equipment is tagged and reported in accordance with work place practices.</p>

	<p>4.4 Off-cuts and unused materials are collected and stored for reuse or disposal following workplace procedures.</p> <p>4.5 Waste and scrap materials are dealt with following workplace procedures.</p>
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Variables	Range
Occupational Health and Safety	<ul style="list-style-type: none"> • Legislation • Environmental; protection law • Material safety management systems • Hazardous substances and dangerous goods code • Local safe operation procedures
Tools and equipment may include but not limited to:	<ul style="list-style-type: none"> • Measuring tapes or rulers • Mallets • Squares • Bevels • Chisel • Planes • Hand saws • Power drills/screw drivers • Pneumatic tools • Clamps • Screwdriver • Rollers • Laminate trimmers and cutters • Hand routers
Materials to be used may include but not limited to:	<ul style="list-style-type: none"> • Wood • Manufactured board • Laminate • wood strips • Adhesives, and • Cleaning materials

Evidence Guide	
Critical Aspects of Competence	<ul style="list-style-type: none"> • Interpret work order and locate and apply relevant information. • Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment • Follow work instructions, operating procedures and inspection practices to: <ul style="list-style-type: none"> – minimize the risk of injury to self or others – prevent damage to goods, tools, equipment or product – maintain required production output and product quality

	<ul style="list-style-type: none"> • Apply and finish laminates to at least three different surfaces, including at least two requiring laminate edging. • Work effectively with others • Modify activities to cater for variations in workplace context and environment.
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • Types, characteristics, uses and limitations of laminates • The interpretation of plan representation of furniture design • The preparation of drawings/set-outs. • Identification of hand and/or power tools, materials, equipment, processes and procedures. • Workflow in relation to furniture production.
Underpinning Skills	<ul style="list-style-type: none"> • Information. Collect, organize and understand information related to work orders, basic plans and safety procedures. • Communication. Communicate ideas and information to enable confirmation of work requirements and specifications, co-ordination of work with site supervisor, other workers and customers, and the reporting of work outcomes and problems. • Planning. Plan and organize activities, including the preparation and layout of the worksite and the obtaining of equipment and materials to avoid any back tracking, workflow interruptions or wastage. • Teamwork. Work with others and in a team by recognizing dependencies and using cooperative approaches to optimize workflow and productivity. • Mathematical ideas and techniques. Use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements. • Solve problems. Use pre-checking and inspection techniques to anticipate construction problems, avoid reworking and avoid wastage.
Resources Implication	Access to plans, hand and/or power tools, equipment, laminate and finishing materials, woodworking machinery, and a work area.
Assessment Methods	<ul style="list-style-type: none"> • Assessment methods must confirm consistency of performance over time and in a range of workplace relevant contexts. • Assessment should be by direct observation of tasks and questioning on underpinning knowledge. • Assessment should be conducted over time and may be in conjunction with assessment of other units of competency
Context of Assessment	Assessment may occur on the job or in a workplace simulated facility with relevant process equipment, materials, work instructions and deadlines.

Occupational Standard: Furniture Making Level II	
Unit Title	Work in Team Environment
Unit Code	IND FMK2 07 0912
Unit Descriptor	This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

Elements	Performance Criteria
1. Describe team role and scope	1.1 The role and objective of the team is identified from available sources of information 1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources
2. Identify own role and responsibility within team	2.1 Individual role and responsibilities within the team environment are identified 2.2 Roles and responsibility of other team members are identified and recognized 2.3 Reporting relationships within team and external to team are identified
3. Work as a team member	3.1 Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives 3.2 Effective and appropriate contributions made to complement team activities and objectives, based on individual skills and competencies and workplace context 3.3 Observed protocols in reporting using standard operating procedures 3.4 Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.

Variable	Range
Role and objective of team	<ul style="list-style-type: none"> • Work activities in a team environment with enterprise or specific sector • Limited discretion, initiative and judgment maybe demonstrated on the job, either individually or in a team environment

Workplace context	<ul style="list-style-type: none"> • Work procedures and practices • Conditions of work environments • Legislation and industrial agreements • Standard work practice including the storage, safe handling and disposal of chemicals • Safety, environmental, housekeeping and quality guidelines
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Evidence Guide	
Critical aspects of competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Operated in a team to complete workplace activity • Worked effectively with others • Conveyed information in written or oral form • Selected and used appropriate workplace language • Followed designated work plan for the job • Reported outcomes
Underpinning Knowledge and Attitude	<ul style="list-style-type: none"> • Communication process • Team structure • Team roles • Group planning and decision making
Underpinning Skills	<ul style="list-style-type: none"> • Communicate appropriately, consistent with the culture of the workplace
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Access to relevant workplace or appropriately simulated environment where assessment can take place
Assessment Methods	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • interview/ written exam • observation/demonstration
Context for Assessment	<p>Competence may be assessed in workplace or in a simulated workplace setting</p>

Occupational Standard: Furniture Making Level II	
Unit Title	Participate in Workplace Communication
Unit Code	IND FMK2 08 0912
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

Elements	Performance Criteria
1. Obtain and convey workplace information	<p>1.1 Specific and relevant information is accessed from appropriate sources</p> <p>1.2 Effective questioning , active listening and speaking skills are used to gather and convey information</p> <p>1.3 Appropriate medium is used to transfer information and ideas</p> <p>1.4 Appropriate non- verbal communication is used</p> <p>1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed</p> <p>1.6 Defined workplace procedures for the location and storage of information are used</p> <p>1.7 Personal interaction is carried out clearly and concisely</p>
2. Participate in workplace meetings and discussions	<p>2.1 Team meetings are attended on time</p> <p>2.2 Own opinions are clearly expressed and those of others are listened to without interruption</p> <p>2.3 Meeting inputs are consistent with the meeting purpose and established protocols</p> <p>2.4 Workplace interactions are conducted in a courteous manner</p> <p>2.5 Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded to</p> <p>2.6 Meetings outcomes are interpreted and implemented</p>
3. Complete relevant work related documents	<p>3.1 Range of forms relating to conditions of employment are completed accurately and legibly</p> <p>3.2 Workplace data is recorded on standard workplace forms and documents</p> <p>3.3 Basic mathematical processes are used for routine calculations</p> <p>3.4 Errors in recording information on forms/ documents are identified and properly acted upon</p>

	3.5 Reporting requirements to supervisor are completed according to organizational guidelines
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Variable	Range
Appropriate sources	<ul style="list-style-type: none"> • Team members • Suppliers • Trade personnel • Local government • Industry bodies
Medium	<ul style="list-style-type: none"> • Memorandum • Circular • Notice • Information discussion • Follow-up or verbal instructions • Face to face communication
Storage	<ul style="list-style-type: none"> • Manual filing system • Computer-based filing system
Forms	<ul style="list-style-type: none"> • Personnel forms, telephone message forms, safety reports
Workplace interactions	<ul style="list-style-type: none"> • Face to face • Telephone • Electronic and two way radio • Written including electronic, memos, instruction and forms, non-verbal including gestures, signals, signs and diagrams
Protocols	<ul style="list-style-type: none"> • Observing meeting • Compliance with meeting decisions • Obeying meeting instructions

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Prepared written communication following standard format of the organization • Accessed information using communication equipment • Made use of relevant terms as an aid to transfer information effectively • Conveyed information effectively adopting the formal or informal communication
Underpinning Knowledge	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • Effective communication • Different modes of communication, procedures and system • Organizational policies • Technology relevant to the enterprise and the individual's work responsibilities
Underpinning Skills	<p>Demonstrates skills of:</p> <ul style="list-style-type: none"> • Follow simple spoken language

	<ul style="list-style-type: none"> • Perform routine workplace duties following simple written notices • Participate in workplace meetings and discussions • Complete work related documents • Estimate, calculate and record routine workplace measures • Basic mathematical processes of addition, subtraction, division and multiplication • Ability to relate to people of social range in the workplace • Gather and provide information in response to workplace Requirements
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • Workplace or fully equipped assessment location with necessary tools and equipment as well as consumable material
Methods of Assessment	<p>Competence may be accessed through:</p> <ul style="list-style-type: none"> • Interview / Written exam • Observation / Demonstration
Context of Assessment	<p>Competence may be assessed individually in the actual workplace or through accredited institution</p>

Occupational Standard: Furniture Making Level II	
Unit Title	Develop Business Practice
Unit Code	IND FMK2 09 0912
Unit Descriptor	This unit specifies the outcomes required to establish a business operation from a planned concept. It includes researching the feasibility of establishing a business operation, planning the setting up of the business, implementing the plan and reviewing operations once commenced

Elements	Performance Criteria
1. Identify business opportunity	<p>1.1 Business opportunities are investigated and identified</p> <p>1.2 Feasibility study is undertaken to determine likely business viability</p> <p>1.3 Market research on product or service is undertaken</p> <p>1.4 Assistance with feasibility study of specialist and relevant parties is sought as required</p> <p>1.5 Impact of emerging or changing technology including e-commerce, on business operations are evaluated</p> <p>1.6 Practicability of business opportunity assessed in line with perceived risks, returns sought and resources available</p> <p>1.7 Business plan for operation is completed</p>
2. Identify personal business skills	<p>2.1 Financial and business skills available are identified and taken into account when business opportunities are researched</p> <p>2.2 Personal skills/attributes are assessed and matched against those perceived as necessary for a particular business opportunity</p> <p>2.3 Business risks are identified and assessed according to resources available and personal preferences</p>
3. Plan for establishment of business operation	<p>3.1 Business structure and operations are determined and documented</p> <p>3.2 Procedures to guide operations are developed and documented</p> <p>3.3 Financial backing for business operation is secured</p> <p>3.4 Business legal and regulatory requirements are identified and complied</p> <p>3.5 Human and physical resources required to commence business operation are determined</p> <p>3.6 Recruitment strategies are developed and implemented</p>

4. Implement establishment plan	<p>4.1 Marketing of business operation is undertaken</p> <p>4.2 Physical and human resources to implement business operation are obtained</p> <p>4.3 Operational unit to support and coordinate business operation is established</p> <p>4.4 Monitoring process for managing operation is developed and implemented</p> <p>4.5 Legal documents are carefully maintained and relevant records are kept and updated to ensure validity and accessibility</p> <p>4.6 Contractual procurement rights for goods and services including contracts with relevant people, negotiated and secured as required in accordance with the business plan</p> <p>4.7 Options for leasing/ownership of business premises identified and contractual arrangements completed in accordance with the business plan</p>
5. Review implementation process	<p>5.1 Review process for implementation of business operation is developed and implemented</p> <p>5.2 Improvements in business operation and associated management process are identified</p> <p>5.3 Identified improvements are implemented and monitored for effectiveness</p>
6. Implement establishment plan	<p>4.8 Marketing of business operation is undertaken</p> <p>4.9 Physical and human resources to implement business operation are obtained</p> <p>4.10 Operational unit to support and coordinate business operation is established</p> <p>4.11 Monitoring process for managing operation is developed and implemented</p> <p>4.12 Legal documents are carefully maintained and relevant records are kept and updated to ensure validity and accessibility</p> <p>4.13 Contractual procurement rights for goods and services including contracts with relevant people, negotiated and secured as required in accordance with the business plan</p> <p>4.14 Options for leasing/ownership of business premises identified and contractual arrangements completed in accordance with the business plan</p>
7. Review implementation process	<p>5.1 Review process for implementation of business operation is developed and implemented</p> <p>5.2 Improvements in business operation and associated</p>

	management process are identified
5.3	Identified improvements are implemented and monitored for effectiveness

Variable	Range
Business opportunities maybe influenced by:	<ul style="list-style-type: none"> • expected financial viability • skills of operator • amount and types of finance available • returns expected or required by owners • likely return on investment • finance required • lifestyle issues
Business viability may include:	<ul style="list-style-type: none"> • opportunities available • market competition • timing/ cyclical considerations • skills available • resources available • location and/ or premises available • risk related to a particular business opportunity, especially • in regard to Occupational Health and Safety and • environmental considerations

Evidence Guide	
Critical Aspects of Competence	<p>A person must be able to provide evidence:</p> <ul style="list-style-type: none"> • that a business operation has been planned and implemented from initial research into feasibility of the business and completion of the plan, through to implementing the plan and commencing operations • the ability to evaluate the results of research and assess the likely viability and practicability of a business opportunity, taking into account the current business/market climate and resources available
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • Federal and regional government legislative requirements affecting business operations, especially in regard to occupational health and safety (OHS) • Technical or specialist skills relevant to the business operation • Financing options • Business systems and operations • Relevant marketing, management, sales and financial concepts • Methods for researching business opportunities • Principles of risk management relevant to the business • Methods of identifying relevant specialist services to complement the business

	<ul style="list-style-type: none"> • Forms and administrative systems • Services available and charges • Planning and control systems (sales, • Advertising and promotion, distribution and logistics • Financial recording systems • Legal rights and responsibilities • Record keeping duties • Operational factors relating to the business (provision of professional services, products)
Underpinning Skills	<ul style="list-style-type: none"> • Literacy skills to interpret legal requirements, company policies and procedures and immediate, day-to-day demands • Marketing skills • Business planning skills • Entrepreneurial skills • Problem-solving skills • OHS skills • Time management skills • Belief in services and products offered by the business • Communication skills including questioning, clarifying, reporting, and giving and receiving constructive feedback • Technical and analytical skills to interpret business documents, reports and financial statements and projections • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities • Problem solving skills to develop contingency plans • Using computers and software packages to record and manage data and to produce reports • Literacy skills to enable interpretation of business information, numeracy skills for data analysis to aid research • Research skills to identify a business opportunity and to conduct a feasibility study • Analytical skills to assess personal attributes and to identify business risks • Observation skills for identifying appropriate people, resources and to monitor work
Resource Implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> • Access to relevant workplace documentation, financial records, and equipment
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written exam • Observation/Demonstration with Oral questioning
Context of Assessment	<p>Competence may be assessed in the workplace or in a simulated work environment</p>

Occupational Standard: Furniture Making Level II	
Unit Title	Apply Continuous Improvement Processes (Kaizen)
Unit Code	IND FMK2 10 1012
Unit Descriptor	This unit of competence covers the exercise of good workplace practice and effective participation in quality improvement teams. Personnel are required to ensure the quality and integrity of their own work, detect non-conformances and work with others to suggest improvements in productivity and quality.

Elements	Performance Criteria
1. Satisfy quality system requirements in daily work	1.1 Access information on quality system requirements for own job function 1.2 Record and report quality control data in accordance with quality system 1.3 Follow quality control procedures to ensure products, or data, are of a defined quality as an aid to acceptance or rejection 1.4 Recognize and report non-conformances or problems 1.5 Conduct work in accordance with sustainable energy work practices 1.6 Promote sustainable energy principles and work practices to other workers
2. Analyze opportunities for corrective and/or optimization action	2.1 Compare current work practices, procedures and process or equipment performance with requirements and/or historical data or records 2.2 Recognize variances that indicate abnormal or sub-optimal performance 2.3 Collect and/or evaluate batch and/or historical records to determine possible causes for sub-optimal performance 2.4 Use appropriate quality improvement techniques to rank the probabilities of possible causes
3. Recommend corrective and/or optimization actions	3.1 Analyze causes to predict likely impacts of changes and decide on the appropriate actions 3.2 Identify required changes to standards and procedures and training 3.3 Report recommendations to designated personnel
4. Participate in the implementation	4.1 Implement approved actions and monitor performance following changes to evaluate results

of recommended actions	<p>4.2 Implement changes to systems and procedures to eliminate possible causes</p> <p>4.3 Document outcomes of actions and communicate them to relevant personnel</p>
5. Participate in the development of continuous improvement strategies	<p>5.1 Review all relevant features of work practice to identify possible contributing factors leading to sub-optimal performance</p> <p>5.2 Identify options for removing or controlling the risk of sub-optimal performance</p> <p>5.3 Assess the adequacy of current controls, quality methods and systems</p> <p>5.4 Identify opportunities to continuously improve performance</p> <p>5.5 Develop recommendations for continual improvements of work practices, methods, procedures and equipment effectiveness</p> <p>5.6 Consult with appropriate personnel to refine recommendations before implementation of approved improvement strategies</p> <p>5.7 Document outcomes of strategies and communicate them to relevant personnel</p>

Variable	Range
Quality control procedures	<p>Quality control procedures may include:</p> <ul style="list-style-type: none"> • standards imposed by regulatory and licensing bodies • enterprise quality procedures • working to a customer brief or batch card and associated quality procedures • checklists to monitor job progress against agreed time, costs and quality standards • preparation of sampling plans • the use of hold points to evaluate conformance • the use of inspection and test plans to check compliance
Methods for statistical analysis	<p>Methods for statistical analysis may include:</p> <ul style="list-style-type: none"> • means • median • mode • ranges • standard deviations • statistical sampling procedures

Problem solving techniques	<p>Problem solving techniques may include:</p> <ul style="list-style-type: none"> • identifying inputs and outputs • sequencing a process • identifying and rectifying a problem step • root cause analysis • implementing preventative strategies
Quality improvement tools and techniques	<p>Quality improvement tools and techniques may include:</p> <ul style="list-style-type: none"> • run charts, control charts, histograms and scattergrams to present routine quality control data • plan, do, check, act (PDCA) • Ishikawa fishbone diagrams and cause and effect diagrams • logic tree • similarity/difference analysis • Pareto charts and analysis • force field/strength weakness opportunities threats (SWOT) analysis
Sustainable energy principles and work practices	<p>Sustainable energy principles and work practices may include:</p> <ul style="list-style-type: none"> • examining work practices that use excessive electricity • switching off equipment when not in use • regularly cleaning filters • insulating rooms and buildings to reduce energy use • recycling and reusing materials wherever practicable • minimizing process waste
Relevant personnel	<p>Communication to relevant personnel may involve:</p> <ul style="list-style-type: none"> • supervisors, managers and quality managers • administrative, laboratory and production personnel • internal/external contractors, customers and suppliers
Reporting	<p>Reporting may include:</p> <ul style="list-style-type: none"> • verbal responses • data entry into laboratory or enterprise database • brief written reports using enterprise proformas
Quality improvement opportunities	<p>Quality improvement opportunities could include improved:</p> <ul style="list-style-type: none"> • production processes • hygiene and sanitation procedures • reductions in waste and re-work • laboratory layout and work flow • safety procedures • communication with customers • methods for sampling, testing and recording data
Occupational health and safety (OHS) and environmental management	<p>OHS and environmental management requirements:</p> <ul style="list-style-type: none"> • all operations must comply with enterprise OHS and environmental management requirements, which may be

requirements	<p>imposed through regional or federal legislation - these requirements must not be compromised at any time</p> <ul style="list-style-type: none"> • all operations assume the potentially hazardous nature of samples and require standard precautions to be applied • where relevant, users should access and apply current industry understanding of infection control issued by the Ministry of Health
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Evidence Guide	
Critical Aspects of Competence	<p>Assessors should ensure that candidates can:</p> <ul style="list-style-type: none"> • use the enterprise's quality systems and business goals as a basis for decision making and action • apply all relevant procedures and regulatory requirements to ensure the quality and integrity of the products/services or data provided • apply and promote sustainable energy principles and work practices • detect non-conforming products or services in the work area • follow enterprise procedures for documenting and reporting information about quality • contribute effectively within a team to recognize and recommend improvements in productivity and quality • apply effective problem solving strategies • implement and monitor improved practices and procedures
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • specifications for laboratory products and services in the candidate's work area • quality requirements associated with the individual's job function and/or work area • scientific and technical knowledge underpinning the processes, procedures, equipment and instrumentation associated with the candidate's work tasks and duties • workplace procedures associated with the candidate's regular technical duties • sustainable energy principles • relevant health, safety and environment requirements • layout of the enterprise, divisions and laboratory • organizational structure of the enterprise • lines of communication • role of laboratory services to the enterprise and customers • methods of making/recommending improvements • Standards, procedures and/or enterprise requirements

Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • applying problem solving techniques and strategies • applying statistical analysis and statistical sampling procedures • detecting non-conforming products or services in the work area • documenting and reporting information about quality • contributing effectively within a team to recognize and recommend improvements in productivity and quality • implementing and monitoring improved practices and procedures • organizing, prioritizing activities and items • reading and interpreting documents describing procedures • recording activities and results against templates and other prescribed formats • working with others
Resources Implication	<p>Access may be required to:</p> <ul style="list-style-type: none"> • workplace procedures and plans relevant to work area • specifications and documentation relating to planned, currently being implemented, or implemented changes to work processes and procedures relevant to the candidate • documentation and information in relation to production, waste, overheads and hazard control/management • reports from supervisors/managers • case studies and scenarios to assess responses to contingencies • enterprise quality manual and procedures • quality control data/records • customer complaints and rectifications
Methods of Assessment	<p>Competence in this unit may be assessed by using a combination of the following to generate evidence:</p> <ul style="list-style-type: none"> • demonstration in the workplace • suitable simulation • case studies/scenarios (particularly for assessment of contingencies, improvement scenarios, and so on) • verified reports of improvements suggested and implemented by the candidate individually <p>Those aspects of competence dealing with improvement processes could be assessed by the use of suitable simulations and/or a pilot plant and/or a range of case studies and scenarios.</p> <p>In all cases, practical assessment should be supported by questions to assess essential knowledge and those aspects of competence which are difficult to assess directly.</p>

Context of Assessment	Competence may be assessed in the work place or in a simulated workplace setting / environment.
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NTQF Level III

Occupational Standard: Furniture Making Level III	
Unit Title	Prepare Technical Drawings
Unit Code	IND FMK3 01 0912
Unit Descriptor	This unit specifies the competence required to read and interpret plans and specifications and produce sketches and sectional view drawings relevant to furniture making.

Elements	Performance Criteria
1. Prepare for work	<p>1.1 OHS requirements associated with preparing basic drawings, documentation tasks and the workplace environment are adhered to</p> <p>1.2 Quality requirements of the company operations are determined / recognized and adhered throughout the process</p> <p>1.3 Tools and equipment selected are consistent with preparing drawings and documentation and checked for serviceability and any faults reported to supervisor</p> <p>1.4 Drawing type is selected and made sure to suit job requirements</p> <p>1.5 Key features, dimensions and orientation, services and features are identified for inclusion in the drawings</p>
2. Create simple sketches, drawings and sectional views	<p>2.1 Drawing medium is selected to suit job requirements</p> <p>2.2 Drawing instruments, equipment and materials are used to produce scaled line work, simple geometric shapes, lettering, numbering and the correct setting out of drawings</p> <p>2.3 Line work is applied in a range of different types and media in accordance with standard industry drawing practice</p> <p>2.4 Hand letter text is formed in a variety of formats</p> <p>2.5 Simple two dimensional drawings and sketches are prepared using standard drawing conventions and specifications</p> <p>2.6 Simple three dimensional drawings and sketches are prepared using standard drawing conventions</p> <p>2.7 Sectional details of simple design elements and angles are prepared using standard drawing conventions</p> <p>2.8 Notations and dimensions are added to complete drawing</p>

3. Develop specifications	<p>3.1 Purpose of specifications are identified as they relate to frame complex drawings</p> <p>3.2 Elements are identified as suitable for use in specifications</p> <p>3.3 Specification for a furniture project is drafted using correct format and conventions.</p> <p>3.4 Different drawing scales and symbols are identified and used</p> <p>3.5 Title panels are prepared to enable verification that drawing used is the latest version</p> <p>3.6 Common symbols and abbreviations are included using correct format and conventions</p> <p>3.7 Any production notes or special requirements are noted</p>
4. Complete drawing	<p>4.1 Angles, shapes and dimensions are checked against specifications and sample.</p> <p>4.2 Adjustments are made to the drawing within scope of authority.</p> <p>4.3 Drawing is checked for compliance with workplace documentation requirements.</p>

Variables	Range
Occupational Health and Safety (OHS)	<p>OHS requirements are to be in accordance with federal legislation and regulations, organizational safety policies and procedures, and project safety plan. This may include :</p> <ul style="list-style-type: none"> • protective clothing and equipment • use of tools and equipment • workplace environment and safety • handling of materials • organizational first aid • hazard control and hazardous materials and substances
Tools and equipment	<p>Tools and equipment include but not be limited to:</p> <ul style="list-style-type: none"> • steel rules, fixers, templates, drawing table, set square and computer
Drawings	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • sketches, orthographic drawings and sectional view drawings • structure/configuration plans, project plans, drawings, specifications, illustrations, dimensions and notes • cross sectional plans, longitudinal plans • perspective views, isometric views, , structural detail and specification providing illustrations and dimensions

Key features of drawings	<p>May include but not be limited to:</p> <ul style="list-style-type: none"> • shape and size/ dimensions, angles and finished sizes • services requirements • types and shape of structure • type of construction and layout
Drawing mediums	<p>May include pencil, pen and ink, computer aided drafting, graph paper, cartridge paper or tracing paper</p>
Specifications	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • detail relating to materials and quality of work, quality assurance, nominated sub-contractors, provision of site access/facilities, details relating to performance including: <ul style="list-style-type: none"> ▪ standards of work ▪ tolerances ▪ material types ▪ characteristics ▪ treatments and finishes • orientation of site is to include relationship to the north compass point, location of roads and relationship to neighboring properties • services may include but not be limited to drainage, sewerage, gas, telephone and cable, water and electricity

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • interpreted and applied relevant information, standards and specifications • complied with production plan, OHS regulations and legislation applicable to workplace operations • complied with organizational policies and procedures including quality requirements • produced drawings and one sectional view drawings in compliance with standard drawing conventions • explained processes for the interpretation of reports, working drawings and specifications • communicate effectively to produce accurate drawing • Prepared production drawings of furniture/furnishings: <ul style="list-style-type: none"> – covering a scope of at least three products – applying both manual and computer-aided techniques and processes
Underpinning Knowledge and Attitudes	<p>A knowledge of</p> <ul style="list-style-type: none"> • features of plans, scale, key, contours, symbols and abbreviations • commonly used general drawing symbols and abbreviations • the processes for application of scales in plan preparation/ interpretation

	<ul style="list-style-type: none"> • techniques for orienting/confirming the orientation of a plan • key features of formal job specifications • project quality requirements • furniture construction terminology • basic calculations of heights, areas, volumes and grades • drawing techniques and conventions • structural, design and construction principles • terminology, definitions and fault identification • furniture design and planning criteria • structural geometry • types of computer-aided drawing equipment, software, techniques and processes • theory and application of calculation with measurement techniques and equipment / tools • types, techniques and processes of manual production drawing • processes for the administration and preparation of documentation and reports
Underpinning Skills	<ul style="list-style-type: none"> • Gathering and interpreting information • Selecting appropriate drawing type, materials and medium • Using drawing tools and equipment • Creating simple sketches, drawings and sectional views • Developing specifications • Using computer-aided techniques (CAD)
Resource Implications	<p>The following resources should be made available:</p> <ul style="list-style-type: none"> • workplace location or simulated workplace • materials relevant to producing construction drawings • equipment appropriate to producing construction drawings • realistic activities covering the mandatory task requirements • specifications and work instructions
Method of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Oral questioning / Written Test • Observation/Demonstration
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Furniture Making Level III	
Unit Title	Monitor Implementation of Work Plan/Activities
Unit Code	IND FMK3 08 0912
Unit Descriptor	This unit deals with the skills and knowledge required to oversee and monitor the quality of work operations within an enterprise. This unit may be carried out by team leaders, supervisors or managers.

Elements	Performance Criteria
1. Plan and organise workflow	<p>1.1 Current workload of colleagues is accurately assessed.</p> <p>1.2 Work is scheduled in a manner which enhances efficiency and customer service quality.</p> <p>1.3 Work is delegated to appropriate people in accordance with principles of delegation.</p> <p>1.4 Workflow is assessed against agreed objectives and timelines.</p> <p>1.5 Colleagues are assisted in prioritization of workload.</p> <p>1.6 Input is provided to appropriate management regarding staffing needs.</p>
2. Monitor and improve workplace operations	<p>2.1 Efficiency and service levels are monitored on an ongoing basis.</p> <p>2.2 Operations in the workplace support overall enterprise goals and quality assurance initiatives.</p> <p>2.3 Quality problems and issues are promptly identified and adjustments are made accordingly.</p> <p>2.4 Procedures and systems are changed in consultation with colleagues to improve efficiency and effectiveness.</p> <p>2.5 Colleagues are consulted about ways to improve efficiency and service levels.</p>
3. Maintain workplace records	<p>3.1 Appropriate documents and information are collected in accordance with workplace procedures.</p> <p>3.2 Workplace records are accurately completed and submitted within required timeframe.</p> <p>3.3 Where appropriate completion of records is delegated and monitored prior to submission.</p> <p>3.4 Workplace records are kept in a secured location</p>
4. Solve problems and make decisions	<p>4.1 Workplace problems are promptly identified and considered from an operational and customer service perspective.</p>

	<p>4.2 Short term action is initiated to resolve the immediate problem where appropriate.</p> <p>4.3 Problems are analysed for any long term impact and potential solutions are assessed and actioned in consultation with relevant colleagues.</p> <p>4.4 Where problem is raised by a team member, they are encouraged to participate in solving the problem.</p> <p>4.5 Follow up action is taken to monitor the effectiveness of solutions in the workplace.</p>
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Variable	Range
Workplace records	May include but not limited to: <ul style="list-style-type: none"> • staff records • regular performance reports

Evidence Guide	Description
Critical Aspects of Competence	<ul style="list-style-type: none"> • ability to effectively monitor and respond to a range of common operational and service issues in the workplace • understanding of the role of staff involved in workplace monitoring • knowledge of quality assurance, principles of workflow planning, delegation and problem solving
Underpinning Knowledge and Attitudes	Demonstrate knowledge and attitude on: <ul style="list-style-type: none"> • the roles and responsibilities of those involved in monitoring work operations • overview of leadership and management responsibilities • principles of work planning and principles of delegation • typical work organisation methods appropriate to the industry • quality assurance principles and time management • problem solving and decision making processes • industrial and/or legislative issues which affect short term work organization as appropriate to industry sector
Underpinning Skills	<ul style="list-style-type: none"> • Planning and organizing workflow • Monitoring and improving workplace operations • Maintaining workplace records • Evaluating efficiency, reporting and documentation
Resource Implications	May include but not limited to workplace or fully equipped assessment location with necessary tools and equipment as well as consumable materials
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Oral questioning / Written Test • Observation/Demonstration
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting

Occupational Standard: Furniture Making Level III	
Unit Title	Construct Jigs and Fixtures
Unit Code	IND FMK3 02 0912
Unit Descriptor	This unit covers the competence to prepare and construct jigs and fixtures to produce furniture components.

Elements	Performance Criteria
1. Identify the purpose of the jig or fixture	1.1 Purpose of the <i>jig or fixture and the equipment it is to be used</i> on is established 1.2 Proposed service life of jig or fixture is established. 1.3 Tolerances allowed are identified. 1.4 Materials for jig construction are established. 1.5 Quality requirements for each stage of the construction process are identified.
2. Plan jig or fixture construction	2.1 Plan of proposed <i>use of jig or fixture</i> is produced. 2.2 Approval of design is gained through workplace procedures. 2.3 Steps or stages in production are planned, noting checkpoints for measurements and tests.
3. Collect materials and equipment	3.1 Workplace health and safety requirements, including personal protection needs, are observed throughout the work. 3.2 Sufficient materials to complete the project are assembled ready for use. 3.3 Suitable work area is selected. 3.4 Hand and/or power tools are identified and checked for serviceability and assembled in work area. 3.5 Appropriate equipment required is identified and checked for serviceability.
4. Construct jig and fixture	4.1 Production plan is followed to construct the jig or fixture. 4.2 <i>Tools and equipment</i> are used in accordance with workplace procedures. 4.3 Quality checks are conducted at the identified points. 4.4 Modifications are identified and recommended within workplace procedures. 4.5 Modifications to the plan are documented and followed 4.6 Jig or fixture is checked for fitness for purpose.

5. Clean-up work area and maintain equipment	<p>5.1 Any faulty and/or defective equipment is isolated and reported to appropriate persons.</p> <p>5.2 Materials, which can be reused, is collected and stored.</p> <p>5.3 Waste and scrap are removed following workplace procedures.</p> <p>5.4 All tools, equipment and personal protective equipment are cleaned, maintained and appropriately stored.</p> <p>5.5 Work area is cleaned in accordance with workplace procedures.</p>
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Variable	Range
Machines for which jigs and fixtures are made may include, but are not limited to:	<ul style="list-style-type: none"> • Band saws • Surface planers • Cross cut saws • Horizontal borers • Jig saws • Vertical drill presses • Mitre saws • Mortisers • Panel and rip saws • Belt sanders • Panel planers • Tenoners • Spindle moulders • Overhead and inverted pin routing machines
Uses of jigs and fixtures may include, but are not limited to:	<ul style="list-style-type: none"> • Holding • Cutting • Shaping • Routing • Drilling
Jigs and fixtures are used in the production of, but are not limited to:	<ul style="list-style-type: none"> • Chair legs • Trenching • End panels • Grooving • Shaping curved components
Tools and equipment may include, but are not limited to:	<ul style="list-style-type: none"> • Measuring tapes or rulers • Clamps • Power Drills/screwdrivers • Pincers • Hammers • Planes • Mallets • Pneumatic tools • Bevels • Chisels • Screw Drivers • Squares • Power Saws • Hand Saws

Evidence Guide	
Critical Aspects of Competence	<ul style="list-style-type: none"> • Interpret work order and locate and apply information. • Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment. • Identify materials used in the work process. • Follow work instructions, operating procedures and inspection practices to: <ul style="list-style-type: none"> – minimize the risk of injury to other – prevent damage to goods, tools, equipment or products – maintain required production output and product quality • The selection of materials and the construction of a minimum of three different types of jigs/fixtures, including one for a shaping machine and one which is adjustable. • Work effectively with others. • Modify activities to cater for variations in workplace contexts and environment.
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • Types, characteristics, uses and limitations of jigs and fixtures. • Criteria for selecting material for use in jigs and fixtures. • Requirements for cutting, shaping and joining materials. • Identification of equipment, processes and procedures. • Workflow in relation to the use of jigs and fixtures.
Underpinning Skills	<ul style="list-style-type: none"> • Information. Collect, organize and understand information related to work orders, jig and fixture design/drawings, plans and safety procedures. • Communication. Communicate ideas and information to enable confirmation of work requirements and specifications, co-ordination of work with site supervisor, other workers and customers, and the reporting of work outcomes and problems. • Planning. Plan and organize activities, including the preparation and layout of the worksite and the obtaining of equipment and materials to avoid any back tracking, workflow interruptions of wastage. • Teamwork. Work with others and in a team by recognizing dependencies and using cooperative approaches to optimize workflow and productivity. • Mathematical ideas and techniques. Use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements..
Resource Implications	<ul style="list-style-type: none"> • Solve problems. Use pre-checking and inspection techniques to anticipate construction problems, avoid reworking and avoid wastage. • Use of technology. Use workplace technology related to jig and fixture construction, including tools, equipment and measuring devices.
Methods of Assessment	<ul style="list-style-type: none"> • Job context, materials and equipment for jig or fixture construction.
Context of	<ul style="list-style-type: none"> • Assessment methods must confirm consistency of performance

Assessment	<p>over time and in a range of workplace relevant contexts.</p> <ul style="list-style-type: none">• Assessment should be by direct observation of tasks and questioning on underpinning knowledge.• Assessment should be conducted over time and may be in conjunction with assessment of other units of competency
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Occupational Standard: Furniture Making Level III	
Unit Title	Prepare Cutting List
Unit Code	IND FMK3 03 0912
Unit Descriptor	This unit covers the required skills, attitudes and knowledge to read plans and job specifications to prepare cutting lists and processing data for subsequent processing operations

Elements	Performance Criteria
1. Plan and prepare	<p>1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and applied</p> <p>1.2 Safety requirements are followed in accordance with safety plans and policies</p> <p>1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement</p> <p>1.4 Materials to be used are prepared in accordance with job requirements</p> <p>1.5 Environmental protection requirements are identified and applied for the project in accordance with environmental plans and regulatory obligations</p>
2. Read plans and specifications	<p>2.1 Job specifications, set-out rods and plans are used to determine the job requirements, including cutting list, dimension, design, quality materials and processes</p> <p>2.2 Job components are established according to job specification and workplace procedures</p> <p>2.3 Geometry of components are established according to specifications</p>
3. Prepare cutting list	<p>3.2 Workplace health and safety requirements, including personal protection needs are observed throughout the work</p> <p>3.3 Cutting list is checked and set out in accordance with workplace procedures and the plans and specifications</p> <p>3.4 Components are identified and described using common workplace terminology</p> <p>3.5 Sizes and tolerance of components are established and documented in accordance with workplace procedures</p> <p>3.6 Processing requirements are identified and documented</p>

	3.7 Dimensional allowances for further processing are identified and documented
4. Read and interpret cutting list	<p>4.1 Cutting list is read and interpreted in accordance with job requirements</p> <p>4.2 Quantities and dimensions are interpreted based on specification.</p> <p>4.3 Quality standards and waste factors are considered in line with work place guideline.</p> <p>4.4 Processing methods are established in accordance with work procedure.</p> <p>4.5 Processing time is identified following working manual.</p>
5. Clean up	<p>5.1 Methodology results are recorded and reported in accordance with workplace procedures</p> <p>5.2 Work area is cleared and materials disposed of, reused or recycled in accordance with legislation/regulations/codes of practice and job specification</p> <p>5.3 Tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturers' recommendations and standard work practices</p> <p>5.4 Work completion procedures are applied and relevant personnel notified that work is finished</p> <p>5.5 All operations are carried out with hazard control procedures in accordance with safety plan and legal requirements</p>

Variables	Range
Safety requirements	<ul style="list-style-type: none"> • OHS requirements are to be in accordance with legislation/ regulations/codes of practice, organizational safety policies and procedures and project safety plan. This may include protective clothing and equipment, use of tools and equipment, workplace environment and safety, handling of materials, use of firefighting equipment, organizational first aid, hazard control and hazardous materials and substances • Safe operating procedures are to include but not be limited to the conduct of operational risk assessment and treatments associated with power cables (including overhead service trays, cables and conduits), lighting, earth leakage boxes, trip hazards, working in confined spaces, working in proximity to others, worksite visitors and the public • Emergency procedures related to this unit are to include but may not be limited to extinguishing fires, organizational first aid requirements and evacuation

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Located, interpret and apply relevant information • Applied safe handling requirements for equipment, products and materials, including use of personal protective equipment • Identified materials and tools used in the work process • Followed work instructions, operating procedures and manufacturers' instructions to: <ul style="list-style-type: none"> – minimize the risk of injury to self and others – prevent damage to goods, equipment and products – maintain optimum production output and product quality • Interpreted production plans and prepare cutting lists a minimum of four occasions with each list having at least ten different components and, overall, the lists incorporating four different types of material • Worked effectively with others • Modified activities to cater for variations in workplace context and environment • clean up workplace
Underpinning Knowledge and Attitudes	<p>A knowledge of –</p> <ul style="list-style-type: none"> • workplace and equipment safety requirements • quality requirements • furniture construction terminology • properties and characteristics of materials and tooling • materials handling, storage and environmentally friendly waste management • identification of equipment, processes and procedures • pattern techniques for optimizing materials • relevant acts, regulations and codes of practice • safe work method • recording, documenting and report writing
Underpinning Skills	<ul style="list-style-type: none"> • Applying OHS procedures, legislations and environmental policies • Interpreting plans • Preparing cutting list • Performing clean-up activities
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • workplace or fully equipped assessment location with necessary tools and equipment as well as consumable materials
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Oral questioning / Written Test • Observation/Demonstration
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Furniture Making Level III	
Unit Title	Bend and Form Wooden Materials
Unit Code	IND FMK3 04 0912
Unit Descriptor	This unit covers the competence to bend and form materials made of wood for use in furniture construction and other wooden products.

Elements	Performance Criteria
7. Prepare for work	<p>1.1 Workplace health and safety requirements, including personal protection needs, are observed throughout the work</p> <p>1.2 Tools, machines and materials are selected and checked prior to use to ensure that they are appropriate for the work, serviceable and in a safe condition</p> <p>1.3 Furniture design, tolerances, process, materials and quantities are determined from work instructions</p> <p>1.4 Work sequence is planned</p> <p>1.5 Procedures are determined for checking quality at each stage of the process</p> <p>1.6 Suitable work area is selected for the task</p> <p>1.7 Preparatory drawings/set-outs for tasks are completed where required</p> <p>1.8 Cutting list for components is developed</p>
8. Complete bending and forming process	<p>2. 1 Tools, machines and equipment are used in accordance with safety requirements and manufacturers' specifications</p> <p>2. 2 Materials are visually inspected for flaws and faults</p> <p>2. 3 Materials are machine sanded to remove exterior blemishes, flaws or faults</p> <p>2. 4 Material is prepared by straightening where required and marked for bending</p> <p>2. 5 Material is heated in ovens, where required, in accordance with design/pattern bending requirements</p> <p>2. 6 Materials are bent and formed using appropriate process/method/techniques and in accordance with the plan/design/pattern requirements</p> <p>2. 7 Components are manufactured and checked against set-outs for tolerances, fit and accuracy.</p> <p>2. 8 Product is checked against plans at identified checkpoints to ensure compliance with specifications</p>

	<p>2. 9 Non-conformity with the required quality standards is rectified</p> <p>2. 10 Product is prepared for final finish</p>
9. Finalize operation	<p>3. 1 Faulty and/or defective equipment is tagged and reported in accordance with workplace practices</p> <p>3. 2 Work area is cleaned, hand and/or power tools and equipment are cleaned, maintained and stored in accordance with workplace procedures</p> <p>3. 3 Off-cuts and unused materials are collected and stored for reuse or disposed of following workplace procedures</p> <p>3. 4 Waste and scrap materials are dealt with following</p>

Variable	Range
Tools	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • hand sanders and planers (planes) • measuring tapes or rulers • hammers and mallets • squares, bevellers and chisels • hand saws and power saws • power drills/screwdrivers • pneumatic tools • clamps and screwdrivers • pincers
Machine/ equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • bench saws • drop saws • stationary sanding machines • ovens • bending presses • band saws and cross cut saws • mitre saws and panel saws • surface planers and panel planers • belt sanders • horizontal borers • vertical drill presses • dovetailers • pedestal grinders • wood turning lathe • veneer guillotines and presses
Materials	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • timber / board • adhesives • screws • nails

	<ul style="list-style-type: none"> • dowels • knockdown fittings • glass • decorative finishes • abrasive paper and finishing materials
Material bending and forming techniques	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • steam/heat and bend • groove and bend
Wood bending methods	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • steam bending • lamination bending • kerf-cut bending • microwaving wood • low pressure steaming
Prepare for final finish	include the removal of bruises, scratches, dents and marks

Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • interpret work order and locate and apply relevant information • apply safe handling requirements for equipment, products and materials, including use of personal protective equipment • apply ventilation standards • follow work instructions, operating procedures and inspection practices to - <ul style="list-style-type: none"> – minimize the risk of injury to self and others – prevent damage to goods, equipment and products – maintain required production output and product quality • bend and form board / timber for a minimum of three furniture items, including - <ul style="list-style-type: none"> – two or three seater lounge – one curved cabinet with rails – oval dining table – dining chair • work effectively with others • modify activities to cater for variations in workplace context and environment • Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations and organization insurance requirements • Conduct operator maintenance on machines and related tools and equipment
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Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • the interpretation of plan representation of wood furniture design • the preparation of drawings/set-outs • identification of hand and/or power tools, materials, equipment, processes and procedures • workflow in relation to wood bending and forming • the types, characteristics, uses and limitations of wooden materials • tools and equipment/machine maintenance process and requirements
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • collect, organize and understand information related to work orders, plans, and safety procedures • communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with site supervisor, other workers and customers, and the reporting of work outcomes and problems • plan and organize activities, including the preparation and layout of the worksite and the obtaining of equipment and materials to avoid any back tracking, workflow interruptions or wastage • work with others and in a team by recognizing dependencies and using cooperative approaches to optimize workflow and productivity • use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements • use pre-checking and inspection techniques to anticipate installation problems, avoid reworking and avoid wastage • use the limited workplace technology related to the installation, including tools, equipment, calculators and measuring devices • perform maintenance procedures
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials, hand and power tools, machines and equipment, cauls and jigs, and to information on workplace and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test / Oral Questioning • Demonstration
Context of Assessment	<p>Competence may be assessed in the workplace or in a simulated workplace setting with relevant machines, tools, equipment, materials and work instructions</p>

Occupational Standard: Furniture Making Level III	
Unit Title	Apply Hardware / Fixtures and Accessories
Unit Code	IND FMK3 05 0912
Unit Descriptor	This unit covers the required skills, attitudes and knowledge to select and apply hardware / fixtures and accessories to new or refurbished furniture.

Elements	Performance Criteria
1. Prepare for work	<p>1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and applied</p> <p>1.2 Safety requirements are followed in accordance with safety plans and policies</p> <p>1.3 Types of hardware are identified and selected for the work</p> <p>1.4 Tools equipment and accessories to carry out tasks are checked for serviceability and any faults rectified or reported prior to commencement</p> <p>1.5 Material quantity requirements are calculated in accordance with plans and/or specifications</p> <p>1.6 Materials appropriate to the work application are identified, obtained, prepared, safely handled and made ready for use</p> <p>1.7 Environmental protection requirements are identified for the project in accordance with environmental plans and regulatory obligations and applied</p>
2. Apply and fit hardware/ fixtures	<p>2.1 Hardware/fixtures and accessories items are laid out/placed in the required design.</p> <p>2.2 Machinery is used in accordance with workplace procedures, including use of personal protective equipment.</p> <p>2.3 Joining/securing process is undertaken according to workplace procedures.</p> <p>2.4 Adhesives are applied according to workplace procedures and/or manufacturers' instructions.</p> <p>2.5 Work is checked against required quality standards.</p>
3. Complete/final ize work	<p>3.2 Work area is cleaned; hand and/or power tools and equipment are cleaned, maintained and stored in accordance with workplace procedures.</p> <p>3.3 Machinery is cleaned and left in a safe mode.</p>

	<p>3.4 Faulty and/or defective equipment is tagged and reported in accordance with workplace practices.</p> <p>3.5 Unused hardware is collected and stored for reuse or disposal following workplace procedures.</p> <p>3.6 Waste and scrap materials are dealt with following workplace procedures.</p>
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Variables	Range
Tools, Equipment and materials	<ul style="list-style-type: none"> Tools and equipment may include, but are not limited to: measuring tapes or rulers, leveling devices, hammers, mallets, squares, bevels, chisels, planes, hand saws, power saws, power drills/screwdrivers, pneumatic tools, clamps, screwdrivers, pincers
Hardware	<ul style="list-style-type: none"> May include but not limited to hinges, handles, drawer-runners, metal drawer systems, sliding rail systems, rotating storage systems and slide-out storage systems

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> interpret work order and locate relevant information apply safe handling requirements for equipment, products and materials, including use of personal protective equipment follow work instructions, operating procedures and inspection practices to: <ul style="list-style-type: none"> prevent damage to equipment and products maintain required production output and product quality minimize the risk of injury to self or others select and apply each item in the range of hardware stipulated in the range statement work effectively with others modify activities to cater for variations in workplace context and environment
Underpinning Knowledge and Attitudes	<p>Knowledge of -</p> <ul style="list-style-type: none"> workplace and equipment safety requirements quality requirements tools and equipment types, characteristics, uses and safe work methods types, characteristics, uses and limitations of hardware interpretation of plan representation of furniture design procedures and techniques in preparation of drawings/set-outs identification of hand and/or power tools, materials,

	<p>equipment, processes and procedures</p> <ul style="list-style-type: none"> • workflow in relation to furniture production
Underpinning Skills	<ul style="list-style-type: none"> • Apply and fit hardware • Operating and handling machines • Proper use of tools and equipment • Handling of materials and hardware
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • workplace or fully equipped assessment location with necessary tools and equipment as well as consumable materials
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Oral questioning / Written Test • Observation/Demonstration
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Furniture Making Level III	
Unit Title	Prepare Bill of Quantity
Unit Code	IND FMK3 06 0912
Unit Descriptor	This competence unit covers the knowledge, skills and attitude in preparing the needed labor, materials and supplies required for the job.

Elements	Performance Criteria
1. Identify nature/ scope of work	1.1 Effective communication skills are applied to determine the nature and scope of work to be undertaken 1.2 Extent of service to be rendered is determined and documented in line with standard operating procedures 1.3 Nature and extent of work are confirmed from appropriate personnel 1.4 Materials and design are determined and confirmed
2. Organize list of specification	2.1 Type of project is identified based on design. 2.2 Required materials are listed according to type of project. 2.3 Quantities of raw materials are determined in size, height, width, thickness, etc. using specific unit of measurement. 2.4 Finishing materials are determined following work /job requirement. 2.5 Types and quantity of assembling and fixing materials are determined according to project design.
3. Calculate resource requirements	3.1 Type and quantity of supplies, materials and labor required to perform work are calculated and finalized in line with job requirements 3.2 Cost of supplies, materials are obtained from suppliers 3.3 Material quantities for the job are correctly calculated using appropriate factors/formula 3.4 Results are confirmed and recorded
4. Estimate approximate quantities and cost	4.1 Calculations for determining resource requirements are taken 4.2 Quantities are estimated from calculations taken 4.3 Resource quantities for the job are calculated, confirmed and recorded within organization tolerances 4.4 Bill of quantity is finalized, documented and presented to appropriate personnel

Variable	Range
Suppliers	includes: <ul style="list-style-type: none"> • distributors • managers • proprietors
Resource requirements	include: <ul style="list-style-type: none"> • supplies and materials • equipment depreciation • labor • overhead and warranty cost

Evidence Guide	
Critical Aspects of Competence	Assessment requires evidence that the candidate <ul style="list-style-type: none"> • identified nature/scope of work • interpreted and applied relevant information • calculated bill of quantity • presented estimate
Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> • Scope and nature of furniture making • Resource requirements in furniture making • Types, characteristics, uses and functions of materials • Basic calculation and measurement • Capacity of machine • Honesty, Perseverance, Patience, Attention to Details • Trade mathematics, calculations and determining quantities • Project quality requirements and organization procedures • Communication devices and process
Underpinning Skills	<ul style="list-style-type: none"> • Identifying resource requirements • Applying correct formula • Estimating quantity of required resources • Estimating total cost of resource requirements
Resource Implications	The following resources must be provided: <ul style="list-style-type: none"> • workplace or fully equipped assessment location with necessary tools and equipment as well as consumable materials
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Oral questioning / Written Test • Observation/Demonstration
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting

Occupational Standard: Furniture Making Level III	
Unit Title	Apply Decorative Finishing
Unit Code	IND FMK3 07 0912
Unit Descriptor	This unit covers the required skills, attitudes and knowledge in carrying out decorative finishes to furniture with all required components. It includes preparation, construction and application of veneers and inlays.

Elements	Performance Criteria
1. Prepare for work	<p>1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and applied</p> <p>1.2 Safety requirements are followed in accordance with safety plans and policies</p> <p>1.3 Tools and equipment selected to carry out tasks are checked for serviceability and any faults are rectified or reported prior to commencement</p> <p>1.4 Material quantity requirements are determined and prepared in accordance with plans and/or specifications</p> <p>1.6 Construction sequence and techniques including quality checking are planned</p> <p>1.7 Environmental protection requirements are identified for the project in accordance with environmental plans and regulatory obligations and applied</p>
2. Lay-out and prepare materials	<p>2.1 Materials are selected and checked for flaws following work instructions.</p> <p>2.2 Materials are laid out to requirements based on specification.</p> <p>2.3 Suitable joining points are selected based on the design.</p> <p>2.4 Material is prepared for cutting in line with work requirement</p>
3. Construct and apply decorative surfaces	<p>3.1 Material is cut to size and required thickness and laid out in the required design.</p> <p>3.3 Machinery is used in accordance with workplace procedures, including use of personal protective equipment.</p> <p>3.4 Joining process is undertaken according to workplace procedures and job requirements</p> <p>3.5 Adhesives are applied according to workplace procedures and/or manufacturers' instructions.</p> <p>3.6 Work is checked against required quality standards and any non-conformity rectified.</p>

4. Complete work	<p>4.1 Work area is cleaned, hand and/or power tools and equipment are cleaned, maintained and stored in accordance with workplace procedures</p> <p>4.2 Machinery is cleaned and left in a safe mode in accordance with manufacturers' recommendations and standard work practices</p> <p>4.3 Faulty and/or defective equipment is tagged and reported in accordance with workplace practices.</p> <p>4.4 Off-cuts and unused materials are collected and stored for reuse or disposal following workplace procedures.</p> <p>4.5 Waste and scrap materials are dealt with following workplace procedures and OHS rules.</p>
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Variables	Range
Safety requirements	<ul style="list-style-type: none"> • OHS requirements include legislation, material safety management systems, hazardous substances and dangerous goods code and local safe operating procedures • Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organization insurance requirements
Tools, Equipment and materials	<ul style="list-style-type: none"> • Tools and equipment may include, but are not limited to: measuring tapes or rulers, knives, mallets, squares, bevels, chisels, planes, clamps and portable vacuum presses • Materials to be used may include but are not limited to: timber, manufactured board, veneer, brass, alloys, adhesives, perspex and decorative laminates
Machinery	<p>Machines may include, but are not limited to:</p> <ul style="list-style-type: none"> • band saws, miter saws, panel saws, sanders, presses and veneer guillotines

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • prepared for decorative finishing work • carrying out of decorative finishes to furniture • observed OHS procedures and measures • Interpret work order and locate relevant information • Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment • Follow work instructions, operating procedures and inspection practices to: <ul style="list-style-type: none"> - minimize the risk of injury to self or others - prevent damage to tools, equipment or products - maintain required production output and product quality

	<ul style="list-style-type: none"> • Prepare and apply a minimum of three different decorative surfaces to various substrates • Work effectively with others and clean-up workplace • Modify activities to cater for variations in workplace context and environment
Underpinning Knowledge and Attitudes	<p>Knowledge of</p> <ul style="list-style-type: none"> • workplace and equipment safety requirements • quality requirements and safe work methods • tools and equipment types, characteristics, uses and maintenance • furniture decorative finishing techniques • decorative finishing materials • materials handling, storage and environmentally friendly waste management • types, characteristics, uses and limitations of decorative surfaces • interpretation of plan representing furniture design • the preparation of drawings/set-outs • identification of hand and/or power tools, materials, equipment, processes and procedures • workflow in relation to furniture production
Underpinning Skills	<ul style="list-style-type: none"> • Lay-outting • Construct and apply decorative surfaces • Carry out decorative finishes • Perform housekeeping
Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> • workplace or fully equipped assessment location with necessary tools and equipment as well as consumable materials
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Oral questioning / Written Test • Observation/Demonstration
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Furniture Making Level III	
Unit Title	Apply Quality Control
Unit Code	IND FMK3 09 0912
Unit Descriptor	This unit covers the knowledge, attitudes and skills required in applying quality control in furniture making.

Elements	Performance Criteria
1. Determine quality standards	1.1 Quality standard documents are acquired and reviewed 1.2 Quality standards and procedures are introduced to organizational staff / personnel. 1.3 Quality standard procedures are ensured to be implemented in accordance with the organization policy. 1.4 Standard procedures are revised / updated when necessary
2. Assess quality of work delivered	2.1 Work outputs and performance are checked against organization quality standards and specifications 2.2 Work outputs and performance delivered are evaluated using the appropriate evaluation parameters and in accordance with organization standards 2.3 Causes of any identified faults are identified and corrective actions are taken in accordance with organization policies and procedures
3. Record information	3.1 Basic information on the quality performance is recorded in accordance with organization procedures 3.2 Records of work quality are maintained according to the requirements of the organization
4. Study causes of quality deviations	4.1 Causes of deviations from final outputs or services are investigated and reported in accordance with organization procedures 4.2 Suitable preventive action is recommended based on organization quality standards and identified causes of deviation from specified quality standards of final service or output
5. Complete documentation	5.1 Information on quality and other indicators of service performance is recorded. 5.2 All service processes and outcomes are recorded.

Variable	Range
Quality check	<ul style="list-style-type: none"> • Check against design and specifications • Visual and physical inspection • Visual inspection of fittings/joints
Quality standards	<ul style="list-style-type: none"> • materials • components construction process • finishing • conformity to specifications
Quality parameters	<ul style="list-style-type: none"> • standard procedures • material specification • techniques and work process

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • checked completed work continuously against organization standard • identified and isolated faulty or poor service • checked service delivered against organization standards • identified and applied corrective actions on the causes of identified faults or error • recorded basic information regarding quality performance • investigated causes of deviations against standard • recommended suitable preventive actions
Underpinning Knowledge	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • relevant quality standards, policies and procedures • characteristics of services • safety environment aspects of service processes • relevant evaluation techniques and quality checking procedures • workplace procedures and reporting procedures
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • interpret work instructions, specifications and standards appropriate to the required work or product • carry out relevant performance evaluation • maintain accurate work records according to procedures • meet work specifications and requirements • communicate effectively within defined workplace procedures
Resource Implications	<ul style="list-style-type: none"> • Access to relevant workplace or appropriately simulated environment and materials relevant to the activity/ task
Methods of Assessment	<p>Competence may be accessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Furniture Making Level III	
Unit Title	Lead Small Teams
Unit Code	IND FMK3 10 0912
Unit Descriptor	This unit covers the skills, knowledge and attitudes required to determine individual and team development needs and facilitate the development of the work group.

Elements	Performance Criteria
1. Provide team leadership	<p>1.1 Learning and development needs are systematically identified and implemented in line with organizational requirements</p> <p>1.2 Learning plan to meet individual and group training and developmental needs is collaboratively developed and implemented</p> <p>1.3 Individuals are encouraged to self-evaluate performance and identify areas for improvement</p> <p>1.4 Feedback on performance of team members is collected from relevant sources and compared with established team learning process</p>
2. Foster individual and organizational growth	<p>2.1 Learning and development program goals and objectives are identified to match the specific knowledge and skills requirements of competence standards</p> <p>2.2 Learning delivery methods are appropriate to the learning goals, the learning style of participants and availability of equipment and resources</p> <p>2.3 Workplace learning opportunities and coaching/ mentoring assistance are provided to facilitate individual and team achievement of competencies</p> <p>2.4 Resources and timelines required for learning activities are identified and approved in accordance with organizational requirements</p>
3. Monitor and evaluate workplace learning	<p>3.1 Feedback from individuals or teams is used to identify and implement improvements in future learning arrangements</p> <p>3.2 Outcomes and performance of individuals/teams are assessed and recorded to determine the effectiveness of development programs and the extent of additional support</p> <p>3.3 Modifications to learning plans are negotiated to improve the efficiency and effectiveness of learning</p> <p>3.4 Records and reports of Competence are maintained within organizational requirement</p>
4. Develop team commitment	<p>1.1 Open communication processes to obtain and share information is used by team</p>

and cooperation	1.2 Decisions are reached by the team in accordance with its agreed roles and responsibilities 1.3 Mutual concern and camaraderie are developed in the team
5. Facilitate accomplishment of organizational goals	5.1 Team members actively participated in team activities and communication processes 5.2 Teams members developed individual and joint responsibility for their actions 5.3 Collaborative efforts are sustained to attain organizational goals

Variable	Range
Learning and development needs	<ul style="list-style-type: none"> • Coaching, mentoring and/or supervision • Formal/informal learning program • Internal/external training provision • Work experience/exchange/opportunities • Personal study and Career planning/development • Performance appraisals • Workplace skills assessment • Recognition of prior learning
Organizational requirements	<ul style="list-style-type: none"> • Quality assurance and/or procedures manuals • Goals, objectives, plans, systems and processes • Legal and organizational policy/guidelines and requirements • Safety policies, procedures and programs • Confidentiality and security requirements • Business and performance plans • Ethical standards • Quality and continuous improvement processes and standards
Feedback on performance	<ul style="list-style-type: none"> • Formal/informal performance appraisals • Obtaining feedback from supervisors, colleagues and clients • Personal and reflective behavior strategies • Routine and organizational methods for monitoring service delivery
Learning delivery methods	<ul style="list-style-type: none"> • On the job coaching or mentoring • Problem solving • Presentation/demonstration • Formal course participation • Work experience • Involvement in professional networks • Conference and seminar attendance • Induction

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • identified and implemented learning opportunities for others • gave and received feedback constructively • facilitated participation of individuals in the work of the team • negotiated learning plans to improve the effectiveness of learning • prepared learning plans to match skill needs • accessed and designated learning opportunities
Underpinning Knowledge and Attitude	<ul style="list-style-type: none"> • Coaching and mentoring principles • Understanding how to work effectively with team members who have diverse work styles, aspirations, cultures and perspective • Understanding how to facilitate team development and improvement • Understanding methods and techniques for eliciting and interpreting feedback • Understanding methods for identifying and prioritizing personal development opportunities and options • Knowledge of career paths and Competence standards in the industry
Underpinning Skills	<ul style="list-style-type: none"> • Ability to read and understand a variety of texts, prepare general information and documents according to target audience; spell with accuracy; use grammar and punctuation effective relationships and conflict management • Communication skills including receiving feedback and reporting, maintaining effective relationships and conflict management • Planning skills to organize required resources and equipment to meet learning needs • Coaching and mentoring skills to provide support to colleagues • Reporting skills to organize information; assess information for relevance and accuracy; identify and elaborate on learning outcomes • Facilitation skills to conduct small group training sessions • Ability to relate to people from a range of social, cultural, physical and mental backgrounds
Resource Implications	Access to relevant workplace or appropriately simulated environment where assessment can take place
Assessment Methods	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting

Occupational Standard: Furniture Making Level III	
Unit Title	Lead Workplace Communication
Unit Code	IND FMK3 11 0912
Unit Descriptor	This unit covers the knowledge, attitudes and skills required to lead in the dissemination and discussion of information and issues in the workplace.

Elements	Performance Criteria
1. Communicate information about workplace processes	1.1 Appropriate communication method is selected 1.2 Multiple operations involving several topics areas are communicated accordingly 1.3 Questions are used to gain extra information 1.4 Correct sources of information are identified 1.5 Information is selected and organized correctly 1.6 Verbal and written reporting is undertaken when required 1.7 Communication skills are maintained in all situations
2. Lead workplace discussion	2.1 Response to workplace issues are sought 2.2 Response to workplace issues are provided immediately 2.3 Constructive contributions are made to workplace discussions on such issues as production, quality and safety 2.4 Goals/objectives and action plan undertaken in the workplace are communicated.
3. Identify and communicate issues arising in the workplace	3.1 Issues and problems are identified as they arise 3.2 Information regarding problems and issues are organized coherently to ensure clear and effective communication 3.3 Dialogue is initiated with appropriate staff/personnel 3.4 Communication problems and issues are raised as they arise

Variable	Range
Methods of communication	<ul style="list-style-type: none"> • Non-verbal gestures • Verbal • Face to face • Two-way radio • Speaking to groups • Using telephone • Written • Using Internet • Cell phone

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> • Dealt with a range of communication/information at one time • Made constructive contributions in workplace issues • Sought workplace issues effectively • Responded to workplace issues promptly • Presented information clearly and effectively written form • Used appropriate sources of information • Asked appropriate questions • Provided accurate information
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • Organization requirements for written and electronic communication methods • Effective verbal communication methods and techniques
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • Organize information • Understand and convey intended meaning • Participate in variety of workplace discussions • Comply with organization requirements for the use of written and electronic communication methods
Resources Implication	The following resources must be provided: variety of information, communication tools, simulated workplace
Assessment Methods	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview • Observation/Demonstration
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting

Occupational Standard: Furniture Making Level III	
Unit Title	Improve Business Practice
Unit Code	IND FMK3 12 0912
Unit Descriptor	This unit covers the skills, knowledge and attitudes required in promoting, improving and growing business operations.

Elements	Performance Criteria
1. Diagnose the business	1.1 Data required for diagnosis is determined and acquired 1.2 Competitive advantage of the business is determined from the data 1.3 SWOT analysis of the data is undertaken
2. Benchmark the business	2.1 Sources of relevant benchmarking data are identified 2.2 Key indicators for benchmarking are selected in consultation with key stakeholders 2.3 Like indicators of own practice are compared with benchmark indicators 2.4 Areas for improvement are identified
3. Develop plans to improve business performance	3.1 A consolidated list of required improvements is developed 3.2 Cost-benefit ratios for required improvements are determined 3.3 Work flow changes resulting from proposed improvements are determined 3.4 Proposed improvements are ranked according to agreed criteria 3.5 An action plan to implement the top ranked improvements is developed and agreed 3.6 Organizational structures are checked to ensure they are suitable
4. Develop marketing and promotional plans	4.1 The practice vision statement is reviewed 4.2 Practice objectives are developed/reviewed 4.3 Target markets are identified/refined 4.4 Market research data is obtained 4.5 Competitor analysis is obtained 4.6 Market position is developed/reviewed 4.7 Practice brand is developed 4.8 Benefits of practice/practice products/services are identified

	4.9 Promotion tools are selected/developed
5. Develop business growth plans	<p>5.1 Plans to increase yield per existing client are developed</p> <p>5.2 Plans to add new clients are developed</p> <p>5.3 Proposed plans are ranked according to agreed criteria</p> <p>5.4 An action plan to implement the top ranked plans is developed and agreed</p> <p>5.5 Practice work practices are reviewed to ensure they support growth plans</p>
6. Implement and monitor plans	<p>6.1 Implementation plan is developed in consultation with all relevant stakeholders</p> <p>6.2 Indicators of success of the plan are agreed</p> <p>6.3 Implementation is monitored against agreed indicators</p> <p>6.4 Implementation is adjusted as required</p>

Variable	Range
Data required includes:	<ul style="list-style-type: none"> • organization capability • appropriate business structure • level of client service which can be provided • internal policies, procedures and practices • staff levels, capabilities and structure • market, market definition • market changes/market segmentation • market consolidation/fragmentation • revenue • level of commercial activity • expected revenue levels, short and long term • revenue growth rate • break even data • pricing policy • revenue assumptions • business environment • economic conditions • social factors • demographic factors • technological impacts • political/legislative/regulative impacts • competitors, competitor pricing and response to pricing • competitor marketing/branding • competitor products
Competitive advantage includes:	<ul style="list-style-type: none"> • services/products • fees • location • timeframe

Objectives should be 'SMART'	<ul style="list-style-type: none"> • Specific • Measurable • Achievable • Realistic • Time defined
Market research data includes:	<ul style="list-style-type: none"> • data about existing clients • data about possible new clients • data from internal sources • data from external sources such as: <ul style="list-style-type: none"> • trade associations/journals • Yellow Pages small business surveys • libraries • Internet • Chamber of Commerce • client surveys • industry reports • secondary market research • primary market research such as: <ul style="list-style-type: none"> ▪ telephone surveys ▪ personal interviews ▪ mail surveys
Competitor analysis	<ul style="list-style-type: none"> • competitor offerings • competitor promotion strategies and activities • competitor profile in the market place
SWOT analysis includes:	<ul style="list-style-type: none"> • internal strengths such as staff capability, recognized quality • internal weaknesses such as poor morale, under-capitalization, poor technology • external opportunities such as changing market and economic conditions • external threats such as industry fee structures, strategic alliances, competitor marketing
Key indicators may include:	<ul style="list-style-type: none"> • salary cost and staffing • personnel productivity (particularly of principals) • profitability • fee structure • client base • size staff/principal • overhead/overhead control
Organizational structures include:	<ul style="list-style-type: none"> • legal structure (partnership, Limited Liability Company, etc.) • organizational structure/hierarchy • reward schemes
Market position should include data on:	<ul style="list-style-type: none"> • product and product mix • the good or service provided • the core product - what is bought • the tangible product - what is perceived

	<ul style="list-style-type: none"> • the augmented product - total package of consumer • features/benefits • product differentiation from competitive products • new/changed products • price and pricing strategies (cost plus, supply/demand, ability to pay, etc.) • pricing objectives (profit, market penetration, etc.) • cost components • market position • distribution strategies • marketing channels • promotion • promotional strategies • target audience • communication • promotion budget
Practice brand may include:	<ul style="list-style-type: none"> • practice image • practice logo/letter head/signage • phone answering protocol • facility decor • slogans • templates for communication/invoicing • style guide • writing style • AIDA (attention, interest, desire, action)
Benefits may include:	<ul style="list-style-type: none"> • features as perceived by the client • benefits as perceived by the client
Promotion tools include:	<ul style="list-style-type: none"> • networking and referrals • seminars • advertising • press releases • publicity and sponsorship • brochures • newsletters (print and/or electronic) • websites • direct mail • telemarketing/cold calling
Yield per existing client may be increased by:	<ul style="list-style-type: none"> • raising charge out rates/fees • packaging fees • reduce discounts • sell more services to existing clients

Evidence Guide	
Critical Aspects of Competence	<p>The candidate must be able to demonstrate:</p> <ul style="list-style-type: none"> • ability to identify the key indicators of business performance • ability to identify the key market data for the business • knowledge of a wide range of available information sources • ability to acquire information not readily available within a business • ability to analyze data and determine areas of improvement • ability to negotiate required improvements to ensure implementation • ability to evaluate systems against practice requirements • and form recommendations and/or make recommendations • ability to assess the accuracy and relevance of information
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • data analysis • communication skills • computer skills to manipulate data and present information • negotiation skills • problem solving • planning skills • marketing principles • ability to acquire and interpret relevant data • current product and marketing mix • use of market intelligence • development and implementation strategies of promotion and growth plans
Underpinning Skills	<ul style="list-style-type: none"> • data analysis and manipulation • ability to acquire and interpret required data • current practice systems and structures • sources of relevant benchmarking data • methods of selecting relevant key benchmarking indicators • communication skills • working and consulting with others when developing plans for the business • negotiation skills and problem solving • using computers to manipulate, present and distribute information • planning skills
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration
Context of Assessment	<p>Competence may be assessed in the workplace or in a simulated workplace setting</p>

Occupational Standard: Furniture Making Level III	
Unit Title	Maintain Quality System and Continuous Improvement Processes (Kaizen)
Unit Code	IND FMK3 13 1012
Unit Descriptor	This unit of competence covers the skills and knowledge required to prevent process improvements in their own work from slipping back to former practices or digressing to less efficient practices. It covers responsibility for the day- to-day operation of the work/functional area and ensuring that quality system requirements are met and that continuous improvements are initiated and institutionalized.

Elements	Performance Criteria
1. Develop and maintain quality framework within work area	1.1 Distribute and explain information about the enterprise's quality system to personnel 1.2 Encourage personnel to participate in improvement processes and to assume responsibility and authority 1.3 Allocate responsibilities for quality within work area in accordance with quality system 1.4 Provide coaching and mentoring to ensure that personnel are able to meet their responsibilities and quality requirements
2. Maintain quality documentation	2.1 Identify required quality documentation, including records of improvement plans and initiatives 2.2 Prepare and maintain quality documentation and keep accurate data records 2.3 Maintain document control system for work area 2.4 Contribute to the development and revision of quality manuals and work instructions for the work area 2.5 Develop and implement inspection and test plans for quality controlled products
3. Facilitate the application of standardized procedures	3.1 Ensure all required procedures are accessible by relevant personnel 3.2 Assist personnel to access relevant procedures, as required 3.3 Facilitate the resolution of conflicts arising from job 3.4 Facilitate the completion of required work in accordance with standard procedures and practices

<p>4. Provide training in quality systems and improvement processes</p>	<p>4.1 Analyze roles, duties and current competency of relevant personnel</p> <p>4.2 Identify training needs in relation to quality system and continuous improvement processes (kaizen)</p> <p>4.3 Identify opportunities for skills development and/or training programs to meet needs</p> <p>4.4 Initiate and monitor training and skills development programs</p> <p>4.5 Maintain accurate training record</p>
<p>5. Monitor and review performance</p>	<p>5.1 Review performance outcomes to identify ways in which planning and operations could be improved</p> <p>5.2 Use the organization's systems and technology to monitor and review progress and to identify ways in which planning and operations could be improved</p> <p>5.3 Enhance customer service through the use of quality improvement techniques and processes</p> <p>5.4 Adjust plans and communicate these to personnel involved in their development and implementation</p>
<p>6. Build continuous improvement process</p>	<p>6.1 Organize and facilitate improvement team</p> <p>6.2 Encourage work group members to routinely monitor key process indicators</p> <p>6.3 Build capacity in the work group to critically review the relevant parts of the value chain</p> <p>6.4 Assist work group members to formalize improvement suggestions</p> <p>6.5 Facilitate relevant resources and assist work group members to develop implementation plans</p> <p>6.6 Monitor implementation of improvement plans taking appropriate actions to assist implementation where required.</p>
<p>7. Facilitate the identification of improvement opportunities</p>	<p>7.1 Analyze the job completion process</p> <p>7.2 Ask relevant questions of job incumbent</p> <p>7.3 Encourage job incumbents to conceive and suggest improvements</p> <p>7.4 Facilitate the trying out of improvements, as appropriate</p>
<p>8. Evaluate relevant components of quality system</p>	<p>8.1 Undertake regular audits of components of the quality system that relate to the work area</p> <p>8.2 Implement improvements in the quality system in accordance with own level of responsibility and workplace procedures</p>

	<p>8.3 Facilitate the updating of standard procedures and practices</p> <p>8.4 Ensure the capability of the work team aligns with the requirements of the procedure</p>
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Variable	Range
Coaching and mentoring	<p>May refer to:</p> <ul style="list-style-type: none"> • providing assistance with problem-solving • providing feedback, support and encouragement • teaching another member of the team, usually focusing on a specific work task or skill
Continuous improvement processes may include:	<p>May include:</p> <ul style="list-style-type: none"> • cyclical audits and reviews of workplace, team and individual performance • evaluations and monitoring of effectiveness • implementation of quality systems, such as International Standardization for Organization (ISO) • modifications and improvements to systems, processes, services and products • policies and procedures which allow the organization to systematically review and improve the quality of its products, services and procedures • seeking and considering feedback from a range of stakeholders • Kaizen • Enterprise-specific improvement systems
Technology	<p>May include:</p> <ul style="list-style-type: none"> • computerized systems and software such as databases, project management and word processing • telecommunications devices • any other technology used to carry out work roles and responsibilities
Customer service	<p>May be:</p> <ul style="list-style-type: none"> • internal or external • to existing, new or potential clients
Key process indicators	<p>Key process indicators may include:</p> <ul style="list-style-type: none"> • statistical process control data/charts • orders • lost time, injury and other OHS records • equipment reliability charts, etc.
Continuous improvement tools	<p>May include:</p> <ul style="list-style-type: none"> • statistics • cause and effect diagrams • fishbone diagram • Pareto diagrams

	<ul style="list-style-type: none"> • run charts • X bar R charts • PDCA • Sigma techniques • balanced scorecards • benchmarking • performance measurement • upstream and downstream customers • internal and external customers immediate and/or final
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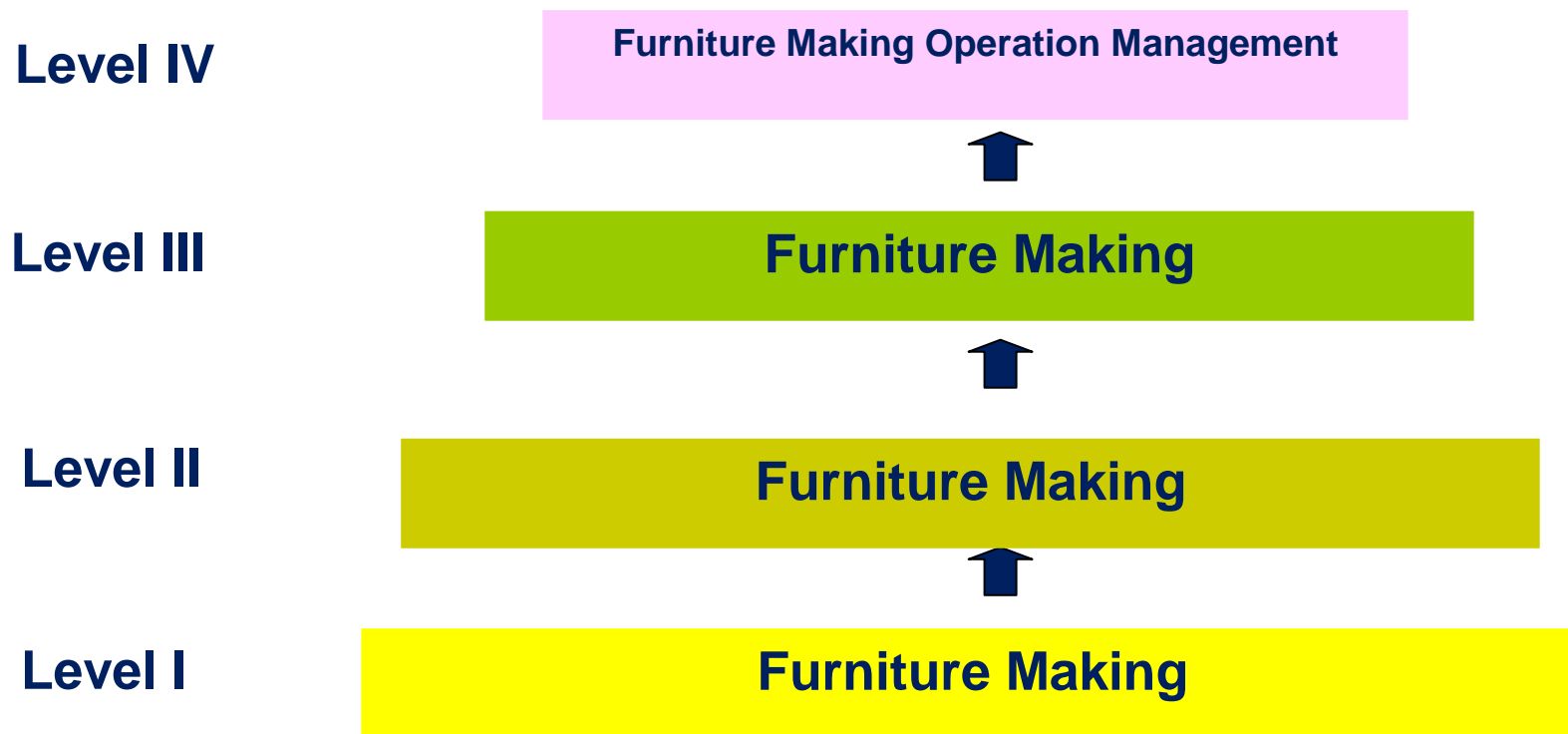
Evidence Guide	
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Critical Aspects of Competence	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • taking active steps to implement, monitor and adjust plans, processes and procedures to improve performance • supporting others to implement the continuous improvement system/processes, and to identify and report opportunities for further improvement • knowledge of principles and techniques associated with continuous improvement systems and processes • assist others to follow standard procedures and practices • assist others make improvement suggestions • standardize and sustain improvements <p>Assessors should ensure that candidates can:</p> <ul style="list-style-type: none"> • implement and monitor defined quality system • requirements and initiate continuous improvements within the work area • apply effective problem identification and problem solving techniques • strengthen customer service through a focus on continuous improvement • implement, monitor and evaluate quality systems in the work area • initiate quality processes to enhance the quality of performance of individuals and teams in the work area • gain commitment of individuals/teams to quality principles and practices • implement effective communication strategies • encourage ideas and feedback from team members when developing and refining techniques and processes • analyze training needs and implement training programs • prepare and maintain quality and audit documentation
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • principles and techniques associated with: <ul style="list-style-type: none"> – benchmarking – best practice – change management

	<ul style="list-style-type: none"> – continuous improvement systems and processes – quality systems • range of procedures available and their application to different jobs • applicability of TAKT time and MUDA to jobs • identification and possible causes of variability in jobs • continuous improvement process for organization • questioning techniques • methods of conceiving improvements • suggestion and try out procedures • relevant OHS • quality measurement tools for use in continuous improvement processes • established communication channels and protocols • communication/reporting protocols • continuous improvement principles and process • enterprise business goals and key performance indicators • enterprise information systems management • enterprise organizational structure, delegations and responsibilities • policy and procedure development processes • relevant health, safety and environment requirements • relevant national and international quality standards and protocols • standard operating procedures (SOPs) for the technical work performed in work area • enterprise quality system
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • coach and mentor team members • gain the commitment of individuals and teams to continuously improve • innovate or design better ways of performing work • communicate with relevant people • prioritize and plan tasks related to encouraging and improving use of standardized procedures • negotiate with others to resolve conflicts and gain commitment to standardized procedures • facilitate other employees in improvement activities • implement and monitor defined quality system requirements • initiate continuous improvements within the work area • apply effective problem identification and problem solving techniques • strengthen customer service through a focus on continuous improvement • implement, monitor and evaluate quality systems • implement effective communication strategies • encourage ideas and feedback from team members when

	<p>developing and refining techniques and processes</p> <ul style="list-style-type: none"> • analyze training needs and implementing training programs • prepare and maintain quality and audit documentation
Resources Implication	<p>Access may be required to:</p> <ul style="list-style-type: none"> • workplace procedures and plans relevant to work area • specifications and documentation relating to planned, currently being implemented, or implemented changes to work processes and procedures relevant to the candidate • documentation and information in relation to production, waste, overheads and hazard control/management • enterprise quality manual and procedures • quality control data/records
Methods of Assessment	<p>Competence in this unit may be assessed by using a combination of the following to generate evidence:</p> <ul style="list-style-type: none"> • demonstration in the workplace • suitable simulation • oral or written questioning to assess knowledge of procedures and contingency management; principles and techniques associated with change management • review of the audit process and outcomes generated by the candidates <p>Those aspects of competence dealing with improvement processes could be assessed by the use of suitable simulations and/or a pilot plant and/or a range of case studies and scenarios.</p> <p>In all cases, practical assessment should be supported by questions to assess underpinning knowledge and those aspects of competence which are difficult to assess directly.</p>
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated workplace setting / environment.</p>

Sector: Industry Development
Sub-Sector: Furniture and Fixture



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