

# National Occupational Skill Standard (NOSS)

**Occupational Title** : Wood Carver

**Level** : 2

**Sector** : Handicraft

**Sub - Sector** : Wood Craft

**NOSS ID/NSCO ID** :

**ISCO NO** :



Council for Technical Education and Vocational Training

**NATIONAL SKILL TESTING BOARD**

Madhyapur Thimi-17, Sanothimi, Bhaktapur, Nepal

Developed: 04-01-2023 (20-09-2079)



2045

**DACUM Panel:**

<b>S. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Organization</b>
1.	Mr. Mahesh Shakya	Member	FHAN Thapathali, Kathmandu
2.	Ms. Purna Laxmi Shaky	Member	Burga Hastakala Bungamati, Lalitpur
3.	Mr. Jayram Maharjan	Member	Thecho Woodcraft Thecho, Lalitpur
4.	Mr. Dipak Shilpakar	Member	Buddha Wood Carving Bhaktapur
5.	Mr. Ram Bhakta Maharjan	Member	Burga Hastakala Bungamati, Lalitpur
6.	Mr. Sujendra Tuladhar	Member	Burga Hastakala Bungamati, Lalitpur
7.	Mr. Ganeshman Rajchal	Member	Bhaktapur Wood Craft Bhaktapur
8.	Mr. Hari Narayan Shilpakar	Member	Bhaktapur
9.	Mr. Amir Shakya	Member	Burga Hastakala Bungamati, Lalitpur
10.	Mr. Machaman Shilpakar	Member	Bhaktapur
11.	Mr. Narayan Prasad Shilpakar	Member	Bhaktapur Wood Craft Bhaktapur

**DACUM Coordinator:**

Mr. Anoj Bhattarai, Curriculum Division, CTEVT

**DACUM Coordinator /Facilitator:**

Mr. Laxman Kawan, Deputy Director, Curriculum Division, CTEVT

Mr. Kishor Chandra Sharma, Curriculum Officer, Curriculum Division, CTEVT

**DACUM Workshop on 20 and 21 August 2022**

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Page:2



**DACUM Verification Panel:**

<b>S. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Organization</b>
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2.	Mr. Kiran Kumar Sthapit	Member	FHAN Thapathali, Bhaktapur
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4.	Mr. Rajesh Shilpakar	Member	Bhaktapur
5.	Mr. Rajaram Shilpakar	Member	Burga Hastakala Bungamati, Lalitpur
6.	Mr. Ratna Prakash Shilpakar	Member	Ratna Shree Wood Craft Bhaktapur
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**DACUM Coordinator:**

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**DACUM Workshop on 22 August 2022**



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Page:3



2045

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1.	Mr. Sanu Raja Shilpakar	Coordinator	Handicraft Technical Sub Committee National Skill Testing Board, Sanothimi, Bhaktapur
2.	Mr. Tek Bahadur Malla	Director	National Skill Testing Board Sanothimi, Bhaktapur
3.	Mr. Hera Ratna Bramhacharya	Member	Hira Artistic Wood Carving Bungamati, Lalitpur
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**Recommended by Handicraft Technical Sub Committee: 04 January 2023 (20 Pausch 2079)**



NOSS ID: #

Developed Date: 2023-01-04

Revision Number: ##

Revised Date: dd/mm/yy

Page:4



1	<b>Occupational Title: Wood Carver</b> <b>Level: 2</b>
2	<b>Job Description:</b>  Wood carver, L-2 prepares tools, equipment and materials for wood carving, prepares design pattern and produce wood carving items.
3	<b>UNITS OF COMPETENCY:</b>  1. Prepare tools, equipment and materials for wood carving 2. Prepare design pattern 3. Produce wood carving items 4. Perform communication 5. Develop professionalism  <i><b>*Note: Units 4 and 5 are not for testing purpose.</b></i>
4	<b>Qualifying Notes/Prerequisites:</b> <ul style="list-style-type: none"> <li>• Physical Requirements: Sound health</li> <li>• Entry Requirements: As per NSTB rules</li> </ul> <b>Additional Information:</b> <ul style="list-style-type: none"> <li>• Assessment Types: Performance test only</li> <li>• Assessment Duration: 8 to 10 hours (Full Competency Only)</li> <li>• Recommended Group Size: 6 to 8 candidates</li> </ul>



5	<b>Unit No:1</b>		<b>Unit code:</b>		
	<b>Unit Title: Prepare tools, equipment and materials for wood carving</b>				
	<b>Elements of competency</b>			<b>Performance standards</b>	
	1.1	Collect tools and equipment		1.1.1	<b>Personal Protective Equipment (PPE)</b> are used in accordance with task requirement.
				1.1.2	<b>Tools and equipment</b> are selected and collected as per task requirement.
				1.1.3	Working condition of tools and equipment are checked and fault is tagged.
				1.1.4	Tools and equipment are placed in workplace keeping enough space to work.
	1.2	Prepare tools and equipment		1.2.1	Tools and equipment set and adjusted as per the task requirement.
1.2.2			Tools and equipment sharpened using appropriate <b>sharpening tools</b> as per manufacturer's guidelines.		
1.2.3			Tools and equipment are lubricated and stored safely in an appropriate way.		
1.3	Select wood	1.3.1	<b>Condition of wood</b> inspected and labelled in accordance with industry practice.		
		1.3.2	<b>Quality wood</b> selected as per agreed product specification with clients.		
		1.3.3	Wood grain pattern matching performed based on workplace practices.		
		1.3.4	Damaged part of wood cut and stored separately based on their size.		
1.4	Perform wood measurement	1.4.1	Selected wood measured with minimum loss according to required measurement.		
		1.4.2	Wood marked clearly to right angle and dimension.		
1.5	Perform wood cutting	1.5.1	Workpiece clamped tightly without damage.		
		1.5.2	Workpiece cut straightly along the marked line following safety procedure.		
		1.5.3	Cut pieces stacked at designated location.		
1.6	Perform worksite clearance	1.6.1	Tools and equipment cleaned and stored at designated location.		
		1.6.2	Unused materials collected and stored in designated location.		
		1.6.3	Workplace cleaned and waste disposed as per <b>3R's principle</b> at designated location.		



6	<p><b>Task Performance Requirements (Tools, Equipment and Materials):</b></p> <ul style="list-style-type: none"> <li>Measuring tape, ruler, pen, paper, pencil, try square, marking thread, hand saw, hand planner, marking gauge, sliding bevel square, hammer, wooden base block, screwdriver, pincer, pliers, iron file, oil/water stone, sand paper, dressing stone, vice, clamp, circular saw, jig saw, miter saw, grinder, brush, dust bin, dust pan, broom, cloth, first aid kit and personal protective equipment (PPE).</li> </ul>
7	<p><b>Safety and Hygiene (Occupational Health and Safety):</b></p> <ul style="list-style-type: none"> <li>Use personal protective equipment.</li> <li>Safe handling of tools, equipment and materials.</li> <li>Hazards involved in lifting tools, equipment and materials.</li> <li>Prevent from electrical hazards.</li> </ul>



8	Required Knowledge		
	Technical Knowledge	Applied Calculation	Graphical Information
	<ul style="list-style-type: none"> <li>• Tools, equipment and materials               <ul style="list-style-type: none"> <li>○ Types</li> <li>○ Uses</li> <li>○ Operation and safe handling</li> </ul> </li> <li>• Introduction of wood carving</li> <li>• Wood carving principles</li> <li>• Introduction of wood</li> <li>• Source of wood</li> <li>• Types of wood (Hard and soft wood)</li> <li>• Common types of wood used for wood carving</li> <li>• Quality and selection of wood</li> <li>• Defects of wood</li> <li>• Conversion of log</li> <li>• Seasoning of wood (Natural and artificial seasoning)</li> <li>• Wood shaping and sizing</li> <li>• Waste management</li> <li>• Record keeping and documentation</li> <li>• Occupational health and safety rules and regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Perform conversion of measurement unit</li> </ul>	<ul style="list-style-type: none"> <li>• Read and interpret manufacturer's instruction</li> <li>• Read and interpret carving drawing</li> </ul>





9	<b>Assessment of Competency</b>				
<b>Unit: 1</b>					
<b>Unit Title: Prepare tools, equipment and materials for wood carving</b>					
<b>Candidate Details</b>			<b>Assessors Detail</b>		
Candidate's Name:			Assessors' Name		ID/License No:
Registration Number:			1.		
Symbol No:			2.		
Test Centre:			3.		
Test Date:					
Element of competency	Performance Standards	Standard Met	Standard Not Met	Evidence Type	Comments
1.1 Collect tools and equipment	1.1.1 <b>Personal Protective Equipment (PPE)</b> are used in accordance with task requirement.				
	1.1.2 <b>Tools and equipment</b> are selected and collected as per task requirement.				
	1.1.3 Working condition of tools and equipment are checked and fault is tagged.				
	1.1.4 Tools and equipment are placed in workplace keeping enough space to work.				
1.2 Prepare tools and equipment	1.2.1 Tools and equipment set and adjusted as per the task requirement.				
	1.2.2 Tools and equipment sharpened using appropriate <b>sharpening tools</b> as per manufacturer's guidelines.				
	1.2.3 Tools and equipment are lubricated and stored safely in an				



	appropriate way.				
1.3 Select wood	<p>1.3.1 <b>Condition of wood</b> inspected and labelled in accordance with industry practice.</p> <p>1.3.2 <b>Quality wood</b> selected as per agreed product specification with clients.</p> <p>1.3.3 Wood grain pattern matching performed based on workplace practices.</p> <p>1.3.4 Damaged part of wood cut and placed/stored separately based on their size.</p>				
1.4 Perform wood measurement	<p>1.4.1 Selected wood measured with minimum loss according to required measurement.</p> <p>1.4.2 Wood marked clearly to right angle and dimension.</p>				
1.5 Perform wood cutting	<p>1.5.1 Workpiece clamped tightly without damage.</p> <p>1.5.2 Workpiece cut straightly along the marked line following safety procedure.</p> <p>1.5.3 Cut pieces stacked at designated location.</p>				
1.6 Perform worksite clearance	<p>1.6.1 Tools and equipment cleaned and stored at designated location.</p> <p>1.6.2 Unused materials collected and stored in designated location.</p> <p>1.6.3 Workplace cleaned and waste disposed as per <b>3R's principle</b> at designated location.</p>				

**WT-** Written Test

**OQ-** Oral Question

**PT-** Practical Test

**DO –** Direct Observation

**SR-** Supervisor's report

**SN–**Simulation

**RP-** Role Play

**PG –**Photographs

**VD-** Video

**CT –** Certificates

**TS –** Testimonials (Reward)

**PP –** Product Produced

**CS –** Case Study



NOSS ID: #

Developed Date: 2023-01-04

Revision Number: ##

Revised Date: dd/mm/yy

Page:10



2045

## Range Statement

Variable	Range
Personal protective equipment	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Hat</li> <li>• Mask</li> <li>• Apron</li> <li>• Face shield/Goggles</li> <li>• Gloves</li> <li>• Safety shoes</li> <li>• Ear plug</li> </ul>
Tools and equipment	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Measuring and marking tools</li> <li>• Cutting tools</li> <li>• Planing tools</li> <li>• Sanding tools</li> <li>• Clamping tools</li> <li>• Shaping/chiselling tools</li> <li>• Drilling tools</li> </ul>
Sharpening tools	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Oil/water stone</li> <li>• Sand paper</li> <li>• Dressing stone</li> <li>• Iron file</li> </ul>



	<ul style="list-style-type: none"> <li>• Grinder</li> </ul>
Condition of wood	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Wood maturity</li> <li>• Wood health</li> <li>• Moisture content</li> <li>• Dryness</li> <li>• Wood density</li> <li>• Natural state</li> <li>• Wood type</li> </ul>
Quality wood	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Straight</li> <li>• Knotless</li> <li>• Rotten free</li> <li>• Crack free</li> <li>• Seasoned</li> <li>• Sap free woods</li> </ul>
3R's principle	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Reduce</li> <li>• Reuse</li> <li>• Recycle</li> </ul>



5	<b>Unit No:2</b>		<b>Unit code:</b>		
	<b>Unit Title: Prepare design pattern</b>				
	<b>Elements of competency</b>			<b>Performance standards</b>	
	2.1 Prepare tools, equipment and materials	2.1.1 <b>Personal protective equipment (PPE)</b> used in accordance with task requirement.			
		2.1.2 Tools and equipment collected and checked for working condition in accordance with task requirement.			
	2.2 Prepare free hand drawing	2.1.3 Materials collected in accordance with task requirements.			
		2.2.1 Client's requirement collected for <b>carving items</b> .			
	2.3 Trace design in tracing paper	2.2.2 Free hand drawing prepared for approved carving items.			
2.2.3 Free hand drawing converted into full scale (1:1) <b>drawing pattern</b> .					
2.4 Prepare template for wood carving	2.3.1 Tracing paper placed over the drawing covering it completely.				
	2.3.2 Edges of the paper secured with tape to prevent from shifting.				
2.5 Transfer design in wood	2.3.3 All the lines from drawings traced lightly with the help of pencil on the tracing paper.				
	2.3.4 Accuracy of traced drawing checked and adjusted as per original drawing.				
2.6 Perform worksite clearance	2.3.5 Drawing patterns re-traced with permanent pen.				
	2.4.1 Traced drawing placed over the <b>pattern making materials</b> .				
2.4.2 Edges of the paper secured with tape to prevent from shifting.		2.4.3 Traced drawing transferred exactly in full size (1:1) on pattern making materials.			
2.4.4 Unnecessary portion removed from pattern as per design.		2.4.5 Prepared pattern checked and stored safely.			
2.5.1 Wood measured according to approved pattern design.		2.5.2 Pattern template put on top surface of the work piece in line and level.			
2.5.3 Pattern traced with a tolerance of 1mm.		2.6.1 Tools and equipment cleaned and stored at designated location			
2.6.1 Tools and equipment cleaned and stored at designated location		2.6.2 Unused materials collected and stored in designated location.			



2.6.3 Workplace cleaned and waste disposed as per **3R's principle** at designated location.

**6 Task Performance Requirements (Tools, Equipment and Materials):**

- Drawing board, drawing paper, pen, pencil, scale, eraser, sharpener, marker, set square, carbon paper, masking tape, protractor, compass, measuring tape, tracing paper, pattern making materials, sketch book, metal stylus, tracing blade, scissor, hacksaw, flat chisel, curve chisel, mallet, dust bin, dust pan, broom, cloth, first aid kit and personal protective equipment (PPE).

**7 Safety and Hygiene (Occupational Health and Safety):**

- Use personal protective equipment.
- Safe handling of tools, equipment and materials.
- Hazards involved in lifting tools, equipment and materials.
- Prevent from electrical hazards.



8	Required Knowledge		
	Technical Knowledge	Applied Calculation	Graphical Information
	<ul style="list-style-type: none"> <li>• Drawing tools and instrument               <ul style="list-style-type: none"> <li>○ Types</li> <li>○ Uses</li> <li>○ Safe handling</li> </ul> </li> <li>• Introduction of drawing and design pattern</li> <li>• Type of drawing lines, sign, symbols and their uses</li> <li>• Freehand drawing and its importance</li> <li>• Types of drawing pattern               <ul style="list-style-type: none"> <li>○ Ornamental pattern</li> <li>○ Traditional motif pattern</li> <li>○ Geometric pattern</li> </ul> </li> <li>• Use and importance of template</li> <li>• Template making technique</li> <li>• Advantages and disadvantages of pattern making</li> <li>• Tracing pattern on paper</li> <li>• Tracing design on wood</li> <li>• Measurement system</li> <li>• Waste management</li> </ul>	<ul style="list-style-type: none"> <li>• Perform conversion of measurement unit</li> <li>• Conversion of drawing scale</li> </ul>	<ul style="list-style-type: none"> <li>• Read and interpret drawing</li> </ul>



	<ul style="list-style-type: none"><li>• Record keeping and documentation</li><li>• Occupational health and safety rules and regulations</li></ul>		
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9	<b>Assessment of Competency</b>					
<b>Unit: 2</b>						
<b>Unit Title: Prepare design pattern</b>						
<b>Candidate Details</b>			<b>Assessors Detail</b>			
Candidate's Name:			Assessors' Name		ID/License No:	
Registration Number:			1.			
Symbol No:			2.			
Test Centre:			3.			
Test Date:						
<b>Element of competency</b>	<b>Performance Standards</b>		<b>Standard Met</b>	<b>Standard Not Met</b>	<b>Evidence Type</b>	<b>Comments</b>
2.1 Prepare tools, equipment and materials	2.1.1 <b>Personal protective equipment</b> (PPE) used in accordance with task requirement.					
	2.1.2 Tools and equipment collected and checked for working condition in accordance with task requirement.					
	2.1.1 Materials collected in accordance with task requirements.					
2.2 Prepare free hand drawing	2.2.1 Client's requirement collected for <b>carving items</b> .					
	2.2.2 Free hand drawing prepared for approved carving items.					
	2.2.1 Free hand drawing converted into full scale (1:1) <b>drawing pattern</b> .					
2.3 Trace design in tracing paper	2.3.1 Tracing paper placed over the drawing covering it completely.					
	2.3.2 Edges of the paper secured with tape to prevent from shifting.					



NOSS ID: #

Developed Date: 2023-01-04

Revision Number: ##

Revised Date: dd/mm/yy

Page:17



	<p>2.3.3 All the lines from drawings traced lightly with the help of pencil on the tracing paper.</p> <p>2.3.4 Accuracy of traced drawing checked and adjusted as per original drawing.</p> <p>2.3.1 Drawing patterns re-traced with permanent pen.</p>				
2.4 Prepare pattern template	<p>2.4.1 Traced drawing placed over the <b>pattern making materials</b>.</p> <p>2.4.2 Edges of the paper secured with tape to prevent from shifting.</p> <p>2.4.3 Traced drawing transferred exactly in full size (1:1) on pattern making materials.</p> <p>2.4.4 Unnecessary portion removed from pattern as per design.</p> <p>2.4.1 Prepared pattern checked and stored safely.</p>				
2.5 Transfer/Trace design in wood	<p>2.5.1 Wood measured according to approved pattern design.</p> <p>2.5.2 Pattern template put on top surface of the work piece in line &amp; level</p> <p>2.5.1 Pattern traced with a tolerance of 1mm.</p>				
2.6 Perform worksite clearance	<p>2.6.1 Tools and equipment cleaned and stored at designated location</p> <p>2.6.2 Unused materials collected and stored in designated location.</p> <p>2.6.1 Workplace cleaned and waste disposed as per <b>3R's principle</b> at designated location.</p>				

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NOSS ID: #

Developed Date: 2023-01-04

Revision Number: ##

Revised Date: dd/mm/yy

Page:18



## Range Statement

Variable	Range
Personal protective equipment	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Hat</li> <li>• Mask</li> <li>• Apron</li> <li>• Goggles</li> <li>• Gloves</li> <li>• Safety shoes</li> </ul>
Carving items	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Srivatsa (Endless knot)</li> <li>• Pundarika (Lotus flower)</li> <li>• Dhoja (Banner/flag)</li> <li>• Kalash (Pitcher/vessel)</li> <li>• Chamar (Yak's tails)</li> <li>• Matsya Yugma (A pair of fish)</li> <li>• Chhatra (Umbrella)</li> <li>• Sankha (Conch shell)</li> <li>• Swastik</li> <li>• Dharma chakra</li> <li>• Purna kalash</li> <li>• Dargon</li> <li>• Om</li> <li>• Khatkon (Hexagonal star)</li> </ul>



	<ul style="list-style-type: none"> <li>• Gachwo/Vastra (Shawl)</li> <li>• Letters (Calligraphy)</li> <li>• Leaves and flowers</li> <li>• Jhallar (Border/Canopy)</li> <li>• Kotapau (Panel)</li> <li>• Vajra</li> <li>• Vishwo vajra</li> <li>• Aayudh/Jwonsaa (Hand held items)</li> </ul>
Drawing pattern	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Ornamental pattern</li> <li>• Traditional motif pattern</li> <li>• Geometric pattern</li> </ul>
Pattern making materials	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Cardboard</li> <li>• Film paper</li> <li>• Wood/plywood</li> <li>• Plastic sheet</li> </ul>
3R's principle	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Reduce</li> <li>• Reuse</li> <li>• Recycle</li> </ul>



5	Unit No:3 Unit Title: Produce wood carving products		Unit code:
	Elements of competency	Performance standards	
3.1 Prepare tools, equipment and materials	3.1.1 <b>Personal protective equipment (PPE)</b> used in accordance with task requirement. 3.1.2 Tools and equipment collected and checked for working condition in accordance with task requirement. 3.1.3 Materials collected in accordance with task requirements.		
3.2 Prepare estimate	3.2.1 Required material types and quantities listed based on design and client's requirement. 3.2.2 Materials costs estimated based on market price. 3.2.3 Labour and time required to produce <b>carving items</b> estimated based on job nature. 3.2.4 Total cost of carved items calculated based on estimates and documented according to workplace format.		
3.3 Transfer design on wood	3.3.1 Wood measured according to approved pattern design. 3.3.2 Drawing pattern transferred exactly in full size (1:1) on wood. 3.3.3 Unnecessary portion removed from the template. 3.3.4 Horizontal and vertical center line marked on work piece. 3.3.5 Pattern template put on top surface of the work piece in line and level. 3.3.6 Pattern traced with a tolerance of 1mm.		
3.4 Perform carving	3.4.1 Outline of the design carved along the traced pattern. 3.4.2 Unnecessary portion removed from the traced pattern. 3.4.3 <b>Blocking technique</b> is performed to conform with wood grains. 3.4.4 Rough carving prepared as per the design using appropriate <b>carving technique</b> . 3.4.5 Detailed carving technique applied to refine the carving and meet <b>design requirements</b> .		
3.5 Conduct surfacing	3.5.1 <b>Surfacing materials</b> selected based on nature of wood and wood grain. 3.5.2 Carved items cleaned and foreign materials removed from surface.		



		3.5.3 Wood putty prepared and cracks, joints, knots and voids on carved surface filled uniformly.
		3.5.4 Uneven and rough surface sanded and smoothed along wood grains.
		3.5.5 Sanded surface wiped and dust removed.
	3.6 Perform worksite clearance	3.6.1 Tools and equipment cleaned and stored at designated location
		3.6.2 Unused materials collected and stored in designated location.
		3.6.3 Workplace cleaned and waste disposed as per <b>3R's principle</b> at designated location.
6	<b>Task Performance Requirements (Tools, Equipment and Materials):</b> <ul style="list-style-type: none"> <li>Measuring tape, ruler, pen, paper, pencil, try square, hand saw, hand planner, marking gauge, sliding bevel square, mallet, hammer, wooden base block, screwdriver, pincer, pliers, nail punch, sharpening tools, vice, clamp, drill machine with bits, router machine/trimmer with bits, circular saw, jig saw, grinder, spoon bit chisel, dog foot chisel, angular chisel, v shape chisel, u shape chisel, gouge, c shape chisel, flat chisel, punching chisel (star, eye, straights, curves, diamond, square, triangular, drops, twirls, circular), blunt chisel, molding chisel, timber/wood, adhesive, saw dust, wood filler, brush, dust bin, dust pan, broom, cloth, first aid kit and personal protective equipment (PPE).</li> </ul>	
7	<b>Safety and Hygiene (Occupational Health and Safety):</b> <ul style="list-style-type: none"> <li>Use personal protective equipment.</li> <li>Safe handling of tools, equipment and materials.</li> <li>Hazards involved in lifting tools, equipment and materials.</li> <li>Prevent from electrical hazards.</li> </ul>	



8	Required Knowledge		
	Technical Knowledge	Applied Calculation	Graphical Information
	<ul style="list-style-type: none"> <li>• Tools, equipment and materials               <ul style="list-style-type: none"> <li>○ Types</li> <li>○ Uses</li> <li>○ Operation and safe handling</li> </ul> </li> <li>• Introduction of wood carving</li> <li>• Wood carving principles</li> <li>• Introduction of wood</li> <li>• Source of wood</li> <li>• Types of wood (Hard and soft wood)</li> <li>• Common types of wood used for wood carving</li> <li>• Quality and selection of wood</li> <li>• Defects of wood</li> <li>• Conversion of log</li> <li>• Seasoning of wood (Natural and artificial seasoning)</li> <li>• Cost estimate</li> <li>• Types of design pattern</li> <li>• Transferring design on wood</li> <li>• Wood carving method</li> </ul>	<ul style="list-style-type: none"> <li>• Calculate cost of carved items</li> <li>• Perform conversion of measurement unit</li> </ul>	<ul style="list-style-type: none"> <li>• Read and interpret carving drawing</li> <li>• Read and interpret manufacturer's instruction</li> </ul>



- Chip carving
- Relief carving
- Whittling
- Sculpture carving
- Carving in the round
- Letter carving
- Wood carving technique
- Wood carving process
- Fixing damaged wood carvings
- Surfacing and finishing of carving items
- Waste management
- Record keeping and documentation
- Occupational health and safety rules and regulations





9	<b>Assessment of Competency</b>					
<b>Unit: 3</b> <b>Unit Title: Produce wood carving items</b>						
<b>Candidate Details</b>			<b>Assessors Detail</b>			
Candidate's Name:			Assessors' Name		ID/License No:	
Registration Number:			1.			
Symbol No:			2.			
Test Centre:			3.			
Test Date:						
Element of competency	Performance Standards		Standard Met	Standard Not Met	Evidence Type	Comments
3.1 Prepare tools, equipment and materials	3.1.1 <b>Personal protective equipment</b> (PPE) used in accordance with task requirement.					
	3.1.2 Tools and equipment collected and checked for working condition in accordance with task requirement.					
	3.1.3 Materials collected in accordance with task requirements.					
3.2 Prepare estimate	3.2.1 Required material types and quantities listed based on design and client's requirement.					
	3.2.2 Materials costs estimated based on market price.					
	3.2.3 Labour and time required to produce <b>carving items</b> estimated based on job nature.					
	3.2.4 Total cost of carved items calculated based on estimates and documented according to workplace format.					



3.3 Transfer design on wood	<p>3.3.1 Wood measured according to approved pattern design.</p> <p>3.3.2 Drawing pattern transferred exactly in full size (1:1) on wood.</p> <p>3.3.3 Unnecessary portion removed from the template.</p> <p>3.3.4 Horizontal and vertical center line marked on work piece.</p> <p>3.3.5 Pattern template put on top surface of the work piece in line and level.</p> <p>3.3.6 Pattern traced with a tolerance of 1mm.</p>				
3.4 Perform carving	<p>3.4.1 Outline of the design carved along the traced pattern.</p> <p>3.4.2 Unnecessary portion removed from the traced pattern.</p> <p>3.4.3 Blocking technique is performed to conform with wood grains.</p> <p>3.4.4 Rough carving prepared as per the design using appropriate <b>carving technique</b>.</p> <p>3.4.5 Detailed carving technique applied to refine the carving and meet <b>design requirements</b>.</p>				
3.5 Conduct surfacing	<p>3.5.1 <b>Surfacing materials</b> selected based on nature of wood and wood grain.</p> <p>3.5.2 Carved items cleaned and foreign materials removed from surface.</p> <p>3.5.3 Wood putty prepared and cracks, joints, knots and voids on carved surface filled uniformly.</p> <p>3.5.4 Uneven and rough surface sanded and smoothed along wood grains.</p> <p>3.5.5 Sanded surface wiped and dust removed.</p>				





## Range Statement

Variable	Range
Personal protective equipment	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Hat</li> <li>• Mask</li> <li>• Apron</li> <li>• Face shield/Goggles</li> <li>• Gloves</li> <li>• Safety shoes</li> <li>• Ear plug</li> </ul>
Carving items	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Srivatsa (Endless knot)</li> <li>• Pundarika (Lotus flower)</li> <li>• Dhoja (Banner/flag)</li> <li>• Kalash (Pitcher/vessel)</li> <li>• Chamar (Yak's tails)</li> <li>• Matsya Yugma (A pair of fish)</li> <li>• Chhatra (Umbrella)</li> <li>• Sankha (Conch shell)</li> <li>• Swastik</li> <li>• Dharma chakra</li> <li>• Purna kalash</li> <li>• Dargon</li> </ul>



	<ul style="list-style-type: none"> <li>• Om</li> <li>• Khatkon (Hexagonal star)</li> <li>• Gachwo/Vastra (Shawl)</li> <li>• Letters (Calligraphy)</li> <li>• Leaves and flowers</li> <li>• Jhallar (Border/Canopy)</li> <li>• Kotapau (Panel)</li> <li>• Vajra</li> <li>• Vishwo vajra</li> <li>• Aayudh/Jwonsaa (Hand held items)</li> </ul>
Blocking technique	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Shaping</li> <li>• Forming</li> </ul>
Carving technique	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Cutting</li> <li>• Chiselling</li> <li>• Drilling/boring</li> <li>• Grooving</li> <li>• Spooning/scooping</li> <li>• Waving</li> <li>• Punching</li> <li>• Grounding</li> <li>• Levelling</li> <li>• Bevelling</li> <li>• Stepping</li> </ul>



	<ul style="list-style-type: none"> <li>• Embossing</li> <li>• Engraving</li> <li>• Enlacing</li> </ul>
Design requirements	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Shape</li> <li>• Dimension</li> <li>• Style</li> <li>• Uniform distance</li> <li>• Alignment</li> <li>• Fineness</li> </ul>
Surfacing materials	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Wax</li> <li>• Wood putty</li> <li>• Wood glue/adhesive</li> <li>• Marine epoxy</li> <li>• Sanding sealer</li> <li>• Lacquer varnish</li> <li>• Sand paper</li> </ul>
Finishing	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"> <li>• Application of stains</li> <li>• Application of varnishes</li> <li>• Application of waxes</li> </ul>



3R's principle	<p><i>May include but not limited to:</i></p> <ul style="list-style-type: none"><li>• Reduce</li><li>• Reuse</li><li>• Recycle</li></ul>
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