



THE REPUBLIC OF KENYA

**NATIONAL OCCUPATIONAL STANDARDS
FOR**

CARPENTRY AND JOINERY ARTISAN

KNQF LEVEL 4

ISCED CODE: 0722 354B



**TVET CDACC
P.O BOX 15745-00100
NAIROBI**

CONSTRUCT WINDOWS & WINDOW FRAMES

UNIT CODE: CON/OS/CAJ/CR/02/4/B

UNIT DESCRIPTION

This unit describes the competencies required to construct windows and window frames. It involves interpreting working drawing, preparing construction materials, marking out product profile, cutting out product profile and performing fixing of the joints. It also includes performing finishing processes, examining quality of the finished product, and performing workplace housekeeping.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA <i>(Bold and italicized terms are elaborated in the Range)</i>
1. Interpret working drawing	1.1 Working drawing interpreted based on architectural design 1.2 Measurements converted as required 1.3 Symbols are identified and interpreted based on International technical drawing (ISO 128) 1.4 Window opening identified as per the Building code. 1.5 Sketched and labelled types of window as per the type of the window
2. Prepare Construction materials	2.1 Identified functions of windows as per the working drawing 2.2 Identified <i>types of windows</i> as per the working drawing 2.3 Cutting list of materials prepared as per the working drawing 2.4 <i>Materials, tools and equipment</i> selected and prepared as per the working drawing
3. Marking out product profile	3.1 Marking tools are identified as per the job requirements 3.2 Marking is carried out according to the working drawing 3.3 Safety is observed during marking out as per the factories act

ELEMENT	PERFORMANCE CRITERIA <i>(Bold and italicized terms are elaborated in the Range)</i>
4. Cut out product profile	4.1 Cutting out tools identified as per the job requirements 4.2 Cutting out is carried out as per the working drawing 4.3 Safety is observed during cutting out product profile as per the factories act 4.4 Housekeeping practices are performed according to workplace procedures
5. Perform fixing of the joints	5.1 Trial fitting is done as per the working drawing specifications 5.2 Final assembling of the window done as per the working drawing specification 5.3 Window fixed in frame as per the drawing specification 5.4 Safety is observed during fixing of the joints
6. Perform finishing processes	6.1 Scrapping is performed as per job requirement 6.2 Sanding is done as per the job requirements 6.3 Staining conducted according to job requirement 6.4 Painting and varnishing performed based on the manufacturer's instructions
7. Examining quality of the finished product	7.1 Examined finished product as per ISO 17637 and ISO 5817 standards 7.2 Recorded quality check results as per the work place procedures
8. Performing workplace housekeeping.	8.1 <i>Housekeeping</i> is conducted as per workplace procedures

RANGE

Variable	Range
1. Tools & equipment may include but is not limited to:	<ul style="list-style-type: none"> • Planes • Square • Saws • Chisel saws • Claw hammer • Mallet

Variable	Range
	<ul style="list-style-type: none"> • Tape measure • Screw driver
2. Types of windows may include but is not limited to:	<ul style="list-style-type: none"> • Top hung • Side hung • Simple louvres
3. Housekeeping may include but is not limited to:	<ul style="list-style-type: none"> • Cleaning • Clearing • Keeping workplace tidy

REQUIRED KNOWLEDGE AND SKILLS

Knowledge

- Construction dimensions
- Architectural drawing
- Local authority by-laws
- Building code
- Structural elements
- Codes of practice
- Basic arithmetic
- Measurement
- Building drawing

Skills

- Measurement
- Basic arithmetic
- Design
- Computer literacy
- planning

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Interpreted working drawing correctly 1.2 Prepared construction materials 1.3 Marked out product profile accurately 1.4 Cut out product profile appropriately 1.5 Was able to perform fixing of the joints 1.6 Performed finishing processes
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	1.7 Examined quality of the finished product 1.8 Performed workplace housekeeping according to workplace procedures
2. Resource Implications	The following resources should be provided: 2.1 Access to relevant workplace or appropriately simulated environment where assessment can take place 2.2 Materials relevant to the proposed activity or tasks
3. Methods of Assessment	Competency may be assessed through: 3.1. Practical assignment 3.2. Written 3.3. Oral interview 3.4. Demonstrations
4. Context of Assessment	Competency may be assessed 4.1 On-the-job 4.2 Off-the –job 4.3 During Industrial attachment
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.