

WORKSHOP TECHNOLOGY PRACTICES

UNIT CODE: CON/CU/ARC/CC/04/6/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Apply Workshop Technology Practices

Duration of Unit: 60 Hours

Unit Description

This unit describes the competence in applying workshop technology practices. It entails performing masonry, plumbing and carpentry tasks. It also involves performing electrical and mechanical operations.

Summary of Learning Outcomes

1. Perform masonry tasks
2. Perform plumbing tasks
3. Perform carpentry tasks
4. Perform electrical operations
5. Perform mechanical operations

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Perform masonry tasks	<ul style="list-style-type: none">• Masonry workshop safety requirements• Masonry hand tools• Masonry machine tools• Maintenance of masonry tools• Use of masonry tools	<ul style="list-style-type: none">• Written tests• Oral Questioning• Practical tests• Project
2. Perform plumbing tasks	<ul style="list-style-type: none">• Plumbing workshop safety requirements• Plumbing hand tools• Plumbing machine tools• Maintenance of Plumbing tools• Use of Plumbing tools	<ul style="list-style-type: none">• Written tests• Oral Questioning• Practical tests• Project

3. Perform carpentry tasks	<ul style="list-style-type: none"> • Carpentry workshop safety requirements • Carpentry hand tools • Carpentry machine tools • Maintenance of Carpentry tools • Use of Carpentry tools 	<ul style="list-style-type: none"> • Written tests • Oral Questioning • Practical tests • Project
4. Perform electrical operations	<ul style="list-style-type: none"> • Electrical workshop safety requirements • Measurement of electrical quantities • IEE regulations • Electrical conventional tools • Installation of basic electrical circuits • Renewable energy • Power supply 	<ul style="list-style-type: none"> • Written tests • Oral Questioning • Practical tests • Project
5. Perform mechanical operations	<ul style="list-style-type: none"> • Mechanical workshop safety requirements • Mechanical hand tools • Use of mechanical tools • Diesel and petrol engines • Water pumps • Maintenance of engines and water pumps 	<ul style="list-style-type: none"> • Written tests • Oral Questioning • Practical tests • Project

Suggested Methods of Instruction

- Demonstration by trainer
- Practical work by trainee
- Demonstration videos
- Field trips
- Trainee group discussions

Recommended Resources

Tools and equipment

- Masons trowel
- Wood float

- Cold chisels
- Masons square
- Spade
- Shovel
- Plumb bob
- Concrete mixer
- Block cutter
- Vibrator
- Pneumatic hammer
- Compactors
- Bench shears
- Anvil
- Pipe wrench
- Pliers
- Bending machine
- Welding
- Sheet metal holding machine
- Portable power drill
- Saws
- Planes
- Hammer
- Carpenter square
- Marking gauges
- Hand drill
- Screw drivers
- circular saw
- Thicknesser
- Portable sander
- Close cut saw
- Portable drill machine
- phase tester
- screw driver
- pliers
- long nose
- side cutter
- draw in wire
- electrical knife
- electrical hammer
- Arc welding shields
- Leather gloves
- Chipping hammers
- Welding goggles

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- Tongs
- Hand vices
- Mole punch
- Pliers
- Centrifugal
- Submersible
- Reciprocating pump
- Hand pumps
- Hand grinder

Materials and supplies

- Lumber
- PPR pipes
- PVC pipes
- GI pipes
- Pipe fittings
- Cement
- Sand
- Lime
- Sheet metal
- Steel plates
- Electrical materials
- Electrical appliances
- Plumbing appliances
- Fuel
- Grease
- Oil
- Filters

Personal protective equipment (PPEs)

- Helmets
- Gloves
- Safety goggles
- Safety boots
- Overalls
- Dust masks
- Gas masks
- Dust coats