

## FABRICATE BEE EQUIPMENT ACCESSORIES

**ISCED UNIT CODE:**0214 251 02A

**TVETCDACC UNIT CODE:**AGR/CU/APIHE/CR/02/3/MA

### UNIT DESCRIPTION

This unit specifies the competencies required to fabricate bee equipment accessories (smoker, hive tool, bee brush, and feeder box). It involves preparing to fabricate a bee smoker, fabricating the smoker, a hive tool, constructing bee brush and conducting post-construction activities and bee equipment

### ELEMENTS AND PERFORMANCE CRITERIA

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
These describe the <b>key outcomes</b> which make up <b>workplace function.</b>	These are <b>assessable</b> statements which specify the required level of performance for each of the elements. <i><b>Bold and italicized terms are elaborated in the Range</b></i>
1. Prepare to fabricate a bee smoker	1.1 <b>Materials and equipment</b> for fabricating a smoker are identified and assembled as per the work place procedures 1.2 The <b>components of a smoker</b> (nozzle, smoker barrel, spring) identified as per the work place procedures 1.4 Personal protective equipment is worn as per the occupational health and safety procedures
2. Fabricate the smoker	2.1 Measure, cut, shape and make the nozzle 2.2 Measure, cut and shape material into shape of the barrel 2.3 Close the bottom of the barrel and smoothen the edges 2.4 Measure and cut the material for the smoker pump(bellows) 2.5 Fix the pump spring and leather/rexin material 2.6 Assemble the smoker components and fix the handle 2.7 Finish by Smoothening all the sharp/rough edges 2.8 The quality of the smoker is evaluated as per the standard specifications
3. Fabricate a hive tool	3.1 Materials and equipment for making the hive tool are assembled as per the requirements

	<p>3.2 Measure and cut the material to size</p> <p>3.3 Curve one end according to the specification</p> <p>3.4 Sharpen both ends</p> <p>3.5 Smoothen and paint according to the work place procedures</p>
4. Construct bee brush	<p>4.1 Materials and equipment for making a bee brush are identified and assembled as per the workplace procedures</p> <p>4.2 Sisal fibers are cut into the recommended length as per workplace procedures</p> <p>4.3 Timber handle is cut and designed as per the specifications</p> <p>4.4 Sisal fibers are fixed onto the handle as per the workplace procedures</p> <p>4.5 Sisal fibers are trimmed as per the workplace procedures</p>
5. Conduct post-construction activities and bee equipment	<p>5.1 Hives and equipment are stored as per the workplace procedures</p> <p>5.2 <b><i>Waste is managed and disposed</i></b> appropriately as per NEMA and workplace procedures</p>
6. Maintain ethical work practices and values	<p>6.1 Personal management is demonstrated through self-awareness, self-esteem, emotional intelligence, stress management and assertiveness based on scope of work.</p> <p>6.2 Policies and guidelines are observed as per the workplace requirements</p> <p>6.3 Self-worth and professionalism is exercised in line with <b><i>personal goals</i></b> and organizational policies</p> <p>6.4 Code of conduct is observed as per the workplace requirements</p> <p>6.5 Teamwork is applied as per work place requirements</p> <p>6.6 <b>Conflicts</b> are resolved between <b><i>team</i></b> members in line with organization policy.</p> <p>6.7 <b><i>Creative, innovative</i></b> and practical solutions are developed based on the problem</p> <p>6.8 <b><i>Customer</i></b> concerns and complaints are analyzed and resolved in line with the set organizational culture.</p>

## RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

Variables	Range
1. Customer may include but not limited to:	<ul style="list-style-type: none"><li>• Loyal</li><li>• Discount</li><li>• Impulse</li><li>• Need-based</li><li>• Wandering</li></ul>
2. Team may include but not limited to:	<ul style="list-style-type: none"><li>• Small workgroup</li><li>• Staff in a section/department</li><li>• Inter-agency Group</li><li>• Virtual teams</li></ul>
3. Creative and Innovation may include but are not limited to:	<ul style="list-style-type: none"><li>• New ideas</li><li>• Original ideas</li><li>• Different ideas</li><li>• Methods/procedures</li><li>• Processes</li><li>• New tools</li></ul>
4. Emerging issues may include but are not limited to:	<ul style="list-style-type: none"><li>• Artificial Intelligence</li><li>• Data confidentiality</li><li>• National cohesion</li><li>• Open offices</li></ul>

<p>5. Materials and equipment for fabrication may include but not limited to</p>	<ul style="list-style-type: none"> <li>• Timber</li> <li>• Flat metal bar</li> <li>• File for sharpening</li> <li>• Nails, hammers</li> <li>• Wood plainer</li> <li>• Joinery equipment</li> <li>• Tape measure</li> <li>• Iron sheets</li> <li>• Galvanized aluminum sheets and wire</li> <li>• Drilling machine</li> <li>• Pliers</li> <li>• Cotton material</li> <li>• Goose net</li> <li>• Coffee wire</li> <li>• Leather/Rexene gloves</li> <li>• Sewing machine</li> <li>• Tailoring scissors</li> <li>• Tin sip</li> <li>• Zips and elastic material</li> </ul>
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6. Bee equipment may include but not limited to	<ul style="list-style-type: none"> <li>• Smokers</li> <li>• Hive tools</li> <li>• Honey extractors</li> <li>• Bee brush</li> <li>• Honey strainers</li> <li>• Sisal yarn</li> <li>• Solar wax extractors</li> <li>• Observation hive</li> <li>• Honey press</li> <li>• Steam wax extractor</li> <li>• PPE</li> <li>• Pollen trap</li> <li>• Catcher box</li> <li>• Propolis collector</li> </ul>
7. Waste is managed and disposed may include but not limited to	<ul style="list-style-type: none"> <li>• Burning</li> <li>• Burying</li> <li>• Recycling</li> <li>• Selling</li> </ul>

## REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

### Required Skills

The individual needs to demonstrate the following skills:

- Organizing skills
- Analytical skills
- Negotiation skills
- Interpersonal skills
- Communication skills
- Evaluation skills
- Problem solving

- Critical thinking
- Bee hive construction skills

## Required Knowledge

The individual needs to demonstrate knowledge of:

- Types of hives and bee equipment
- Types of hives
- Hive standard specifications
- Evaluation of hive and bee equipment
- Waste Disposal procedures.
- Workshop technology
- Machine operation
- Maintenance of equipment

## 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> <ol style="list-style-type: none"> <li>1.1 Assembled materials and equipment for construction of hives as per the type of hive and bee equipment.</li> <li>1.2 Donned personal protective equipment as per the occupational health and safety procedures</li> <li>1.3 Constructed and evaluated quality of hives and bee equipment as per standard specifications</li> <li>1.4 Stored hives and equipment as per the workplace procedures</li> <li>1.5 Managed and disposed waste appropriately as per NEMA and workplace procedures</li> </ol>
2. Resource Implications for competence	<p>The following resources should be provided:</p> <ol style="list-style-type: none"> <li>2.1 Access to relevant workplace</li> <li>2.2 Appropriately simulated environment where assessment</li> </ol>

certification	<p>can take place</p> <p>2.3 Materials relevant to the proposed activity or tasks</p>
3. Methods of Assessment	<p>Competency may be assessed through:</p> <p>3.1 Written tests</p> <p>3.2 Third party reports</p> <p>3.3 Oral questioning</p> <p>3.4 Interview</p> <p>3.5 Observation</p>
4. Context of Assessment	<p>Assessment could be conducted:</p> <ul style="list-style-type: none"> <li>• On-the-job</li> <li>• In a simulated work environment</li> </ul>
5. Guidance information for assessment	<p>Holistic assessment with related units in the sector</p>