

BEE EQUIPMENT ACCESSORIES FABRICATION

ISCED UNIT CODE: 0214 251 02A

TVETCDACC UNIT CODE: AGR/CU/APIHE/BC/02/3/MA

Relationship to Occupational Standards

This unit addresses the unit of competency: Fabricate bee equipment accessories

Duration of Unit: 120hours

Unit Description

This unit specifies the competencies required to fabricate bee equipment accessories (smoker, hive tool, bee brush, 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

S/No	Learning Outcomes	Duration (Hours)
1.	Prepare to fabricate a bee smoker	20
2.	Fabricate the smoker	20
3.	Fabricate a hive tool	20
4.	Construct bee brush	20
5.	Conduct post-construction activities and bee equipment	20
6.	Maintain Ethical Work Practices and Values	20
Total		120

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Methods of assessment
1. Prepare to fabricate a	1.1 Identification and assembling of materials and equipment for fabricating a smoker	<ul style="list-style-type: none">• Written test• Observation

Learning Outcome	Content	Methods of assessment
bee smoker	1.2 Components of a smoker 1.3 Personal protective equipment in fabricating a bee smoker	<ul style="list-style-type: none"> • Third party report • Oral questioning • Interviews
2. Fabricate the smoker	2.1 Assembling materials and equipment for fabricating a bee smoker 2.2 Measuring, cutting, shaping and making the nozzle 2.3 Measuring, cutting, shaping and making the barrel 2.4 Fixing the bottom of the barrel and smoothening the edges 2.5 Measuring and cutting the material for the smoker pump 2.6 Fixing the pump spring and leather/rexin material 2.7 Assembling the smoker components and fixing the handle 2.8 Smoothening all the sharp/rough edges 2.9 Evaluation of the quality of the bee smoker	<ul style="list-style-type: none"> • Written test • Observation • Third party report • Oral questioning • Interviews
3. Fabricate a hive tool	3.1 Types of hive tools 3.2 Assembling materials and equipment for making the hive tool 3.3 Measuring and cutting the material to size 3.4 Curving one end 3.5 Sharpening of both ends 3.6 Smoothening and painting 3.7 Evaluation of the quality of the fabricated hive tool	<ul style="list-style-type: none"> • Written test • Observation • Third party report • Oral questioning • Interviews

Learning Outcome	Content	Methods of assessment
4. Construct bee brush	4.1 Identification and assembling of materials and equipment for making a bee brush 4.2 Cutting of sisal fibres into the recommended length 4.3 Types of timber to be used in making bee brush handles Cutting of timber handle 4.4 Fixing fibres onto the handle 4.5 Trimming sisal fibres to the desired length Evaluation of the quality of the bee brush	<ul style="list-style-type: none"> • Written test • Observation • Third party report • Oral questioning • Interviews
5. Conduct post-construction activities and bee equipment	5.1 Storage of fabricated bee hives and bee equipment 5.2 Management and disposal of waste in fabrication	<ul style="list-style-type: none"> • Written test • Observation • Third party report • Oral questioning • Interviews
6. Maintain Ethical Work Practices and Values	6.1 Personal Management 6.2 Observation of policies and guidelines 6.3 Exercise of self-worth and professionalism 6.4 Observation of code of conduct 6.5 Team work application 6.6 Conflict resolution 6.7 Development of creativity, innovative and practical solutions 6.8 Analyzation of customer concerns and complaints	<ul style="list-style-type: none"> • Observation • oral assessment • Written assessment • Third-party reports • Portfolio of Evidence • Practical assessment

Suggested Methods of instructions

- Projects
- Demonstration by trainer
- Practice by the trainee
- Discussions
- Direct instruction

Recommended Resources for 25 trainees

General Resources	Tools and Equipment	Materials and Supplies
Cotton material	Pliers	PPE
Goose net	Drilling machine	Nails
Coffee wire	Tape measure	Leather/Rexene gloves
Galvanized aluminium sheets and wire	Wood plainer	
Timber	File for sharpening	
Flat metal bar	Flat metal bar	
Iron sheets (as per number and size of bee hives)	Tailoring scissors	
Bee escape board	Tin snip	
10 Steam wax extractor	Sewing machine	
25 Pollen trap	hammers	
5 Catcher box	Joinery equipment	
5 Wood glue	Hive tools	
25 Bee brush		
25 Honey strainers		
Fiber materials		
10 Solar wax extractors		
5 Observation hive		
10 Honey press		
Zips and elastic material		

Smokers		
Honey extractors		
25 Desktop computers/laptops	25 mobile phones	Flashcards
Internet connection	Telephone	Flip charts
1 Projector 1 Printer		2 packets of assorted colors of whiteboard marker pens
1 Whiteboard		Printing papers
5 Business plan templates 1 Overhead projectors Internet		<ul style="list-style-type: none"> • 25 sets of Writing materials Stationery • Charts

Suggested Methods of Instruction

- Assignments
- Brainstorming
- Case studies
- Demonstration
- Direct instruction with active learning strategies
- Experiential
- Field trips
- Group Discussion
- Guest speakers
- Instructor lead facilitation of theory using active learning strategies.
- Practice assignment
- Presentations
- Problem-solving
- Question and answer
- Roleplay
- Simulation/Roleplay
- Team training