

## BOTANY AND ZOOLOGY

**ISCED UNIT CODE:** 0511 541 23A

**TVET CDACC UNIT CODE:** HE/CU/AHP/CC/04/6/MA

### Relationship to Occupational Standards

This unit addresses the Unit of Competency: Apply knowledge of botany and zoology.

**Unit Duration:** 50 Hours

### Unit Description

This unit specifies the competencies required by an animal health and production technologist to apply knowledge of botany and zoology in animal health and production. It involves applying knowledge of botany and zoology, plant morphology and plant and animal classification.

### Summary of Learning Outcomes

By the end of this unit, the learner should be able to:

S/No	Learning Outcomes	Duration (Hours)
1.	Apply principles of botany and zoology	10
2.	Apply knowledge of plant morphology	20
3.	Apply knowledge of plant and animal classification in animal production	20
<b>Total</b>		<b>50</b>

### Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Methods of assessment
1. Apply knowledge of botany and zoology	1.1. Definition of terms 1.1.1. Botany 1.1.2. Zoology 1.2. Basic concept of botany and zoology 1.3. Importance of botany and	<ul style="list-style-type: none"><li>• Practical</li><li>• Project</li><li>• Portfolio of evidence</li><li>• Third party report</li><li>• Written assessment</li></ul>

	<p>zoology</p> <p>1.4. Cell structure and function of plant and animal</p> <p>1.5. Stages of cell division</p> <p>1.5.1. Prophase</p> <p>1.5.2. Metaphase</p> <p>1.5.3. Anaphase</p> <p>1.5.4. Telophase</p> <p>1.6. Levels of organism organization</p>	<ul style="list-style-type: none"> <li>• Oral questioning</li> </ul>
2. Apply knowledge of plant morphology	<p>2.1. Plant morphology</p> <p>2.2. Root system, type, part and modifications</p> <p>2.3. Stem parts and modification</p> <p>2.4. Structure of a typical leaf</p> <p>2.5. Parts of a typical flower</p> <p>2.6. Formation and classification of fruits and seeds</p>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Portfolio of evidence</li> <li>• Third party report</li> <li>• Written assessment</li> <li>• Oral questioning</li> </ul>
3. Apply knowledge of plant and animal classification in animal production	<p>3.1. Plant classification</p> <p>3.2. Animal classification</p> <p>3.3. Hierarchical groupings in animals and plants</p> <p>3.4. Phyla of veterinary importance</p> <p>3.4.1. Chordata</p> <p>3.4.2. Nematoda</p> <p>3.4.3. Platyhelminthes</p> <p>3.4.4. Arthropoda</p> <p>3.4.5. Mollusca</p>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Portfolio of evidence</li> <li>• Third party report</li> <li>• Written assessment</li> <li>• Oral questioning</li> </ul>

### Suggested Methods of delivery

- Practical
- Projects
- Demonstrations

- Group discussion
- Direct instructions

### Recommended Resources for 25 trainees

S/No.	Category/Item	Description/ Specification	Quantity	Recommended Ratio (Item: Trainee)
	<b>Learning materials</b>			
1.	Projector		1	1:25
2.	Whiteboard/Smart board		1	1:25
3.	Desktop/computer		1	1:25
4.	Lecture/Theory room		1	1:25
5.	Animal farm	As guided by KVB	1	1:25
6.	Library		1	1:25
7.	E-Library		1	1:25