

APPLY TAXONOMICAL CONCEPTS

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UNIT DESCRIPTION

This unit describes the competencies required to apply taxonomical concepts. It involves applying principles of classification, carrying out kingdom Monera survey, carrying out kingdom Protoctista survey, carrying out kingdom fungi survey, carrying out kingdom plantae survey, carrying out kingdom animalia survey, and constructing dichotomous key

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace functions	These are assessable statements which specify the required level of performance for each of the elements <i>(Bold and italicized terms are elaborated in the range)</i>
1. Apply principles of classification	1.1 Collection instruments are selected as per specimen requirements. 1.2 Living organisms are collected as per laboratory manual 1.3 Specimen is classified according to taxonomy manual
2. Carry out kingdom monera survey	2.1 General characteristics of kingdom Monera are identified as per taxonomic classification system. 2.2 Kingdom Monera organisms are classified based on taxonomic classification system. 2.3 kingdom Monera samples are examined as per good laboratory practices 2.4 Kingdom Monera <i>economic importance</i> knowledge is applied as per taxonomy manual.
3. Carry out kingdom Protoctista survey	3.1 General characteristics of kingdom Protoctista are identified as per taxonomic classification system.

	<p>3.2 Protists are classified based on taxonomic classification system.</p> <p>3.3 Protists samples are examined as per good laboratory practices</p> <p>3.4 Protists economic importance knowledge is applied as per taxonomy manual.</p>
4. Carry out kingdom Fungi survey	<p>4.1 General characteristics of kingdom Fungi are identified as per taxonomic classification system.</p> <p>4.2 Fungi are classified based on taxonomic classification system.</p> <p>4.3 Fungal samples are examined as per good laboratory practices</p> <p>4.4 Fungi economic importance knowledge is applied as per taxonomy manual.</p>
5. Carry out kingdom Plantae survey	<p>5.1 General characteristics of organisms are identified as per taxonomic procedures</p> <p>5.2 Plant specimens are collected and classified according to taxonomic classification system.</p> <p>5.3 Plants economic importance knowledge is applied as per botanical procedures</p>
6. Carry out kingdom Animalia survey	<p>6.1 General characteristics of organisms are identified as per taxonomic classification system.</p> <p>6.2 Sub groups of kingdoms animalia are identified as per taxonomic classification system.</p> <p>6.3 Specimens are collected, classified and identified according to taxonomic classification system.</p> <p>6.4 Economic importance of kingdom Animalia is determined as per their uses</p>
7. Construct dichotomous key	<p>7.1 Characteristics of living organism is identified as per laboratory manual procedures</p> <p>7.2 Dichotomous key is constructed as per laboratory manual procedures</p> <p>7.3 Steps in dichotomous key is identified as per laboratory manual procedures</p>

	7.4 Specimen is identified in the dichotomous key as per laboratory manual procedures
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RANGE

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

Variable	Range
Economic importance includes but not limited to:	<ul style="list-style-type: none"> • Diseases • Ecological relationships • Food • Industrial

REQUIRED KNOWLEDGE AND SKILLS

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

Required knowledge

The individual needs to demonstrate knowledge of:

- Scientific report writing
- Occupational safety and health
- Basic mathematics
- Computer application
- Microscopy
- Plant Anatomy
- Animal Anatomy

Required skills

The individual needs to demonstrate the following skills:

- Problem solving
- Digital literacy
- Communication
- Critical thinking
- Interpersonal

- First aid
- Photography
- Report writing

EVIDENCE GUIDE

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

<p>1. Critical aspects of competency</p>	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Classified specimen according to binomial nomenclature</p> <p>1.2 Classified Kingdom Monera organisms based on taxonomic classification system.</p> <p>1.3 Applied Kingdom monera economic importance knowledge as per taxonomy manual.</p> <p>1.4 Protists are classified based on taxonomic classification system.</p> <p>1.5 Applied Protists economic importance knowledge as per taxonomy manual.</p> <p>1.6 Classified Fungi based on taxonomic classification system</p> <p>1.7 Applied Fungi economic importance knowledge as per taxonomy manual.</p> <p>1.8 Collected and classified plant specimens according to taxonomic classification system.</p> <p>1.9 Applied plants economic importance knowledge as per botanical procedures</p> <p>1.10 Collected, classified and identified Specimens according to taxonomic classification system.</p> <p>1.11 Determined economic importance of kingdom Animalia as per their uses</p> <p>1.12 Constructed dichotomous key as per laboratory manual procedures</p>
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<p>2. Resource implications</p>	<p>The following resources should be provided:</p> <p>2.1 Appropriately simulated environment where assessment can take place</p> <p>2.2 Access to relevant work environment</p> <p>2.3 Resources relevant to the proposed activities or tasks</p>
<p>3. Methods of assessment</p>	<p>Competency in this unit may be assessed through:</p> <p>3.1 Practical assessment</p> <p>3.2 Project</p> <p>3.3 Oral assessment</p> <p>3.4 Portfolio of evidence</p> <p>3.5 Third party report</p> <p>3.6 Written tests</p>
<p>4 Context of assessment</p>	<p>Competency may be assessed in a:</p> <p>Workplace or simulated workplace</p>
<p>5 Guidance information for assessment</p>	<p>Holistic assessment with other units relevant to the industry sector and workplace job role is recommended.</p>