

<b>Domain Title:</b>	<b>BRICKLAYING</b> <b>Perform basic estimations, measurements and calculations for bricklaying operations</b>	<b>Unit ID: 8</b>
<b>Level: 2</b>		<b>Credits: 2</b>

### Purpose

This unit standard specifies the competencies required to carry out basic estimations, measurements and simple calculations to determine task and material requirements for bricklaying. This unit standard is intended for those who work as bricklayers and plasterers.

### Special Notes

1. Entry information

Prerequisite:

- Unit 3 - *Apply safety rules and regulations in bricklaying operations* or demonstrated equivalent knowledge and skills.

2. To demonstrate competence, at a minimum, requires evidence of the completion of estimations, measurements, calculations and determination of quantities relevant to at least three different realistic bricklaying tasks. Perform these tasks ensuring correct identification of requirements and finishing of the task, correct selection and use of appropriate processes, tools and equipment and completing all work to specification.

3. Assessment evidence may be collected from a real workplace, a simulated real workplace or an appropriate simulated realistic environment in which bricklaying operations are carried out.

4. Glossary of terms:

- *'estimation'* means an approximate calculation of quantity, extent, weight, size or degree
- *'calculation'* means determining the dimensions, quantity, or capacity of an object by applying mathematical methods
- *'measurement'* means to ascertain the dimensions, quantity or capacity of an object using a measuring device.

4. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' guidelines and instructions.

5. *'Specifications'* refers to any, or all of the following: manufacturers' specifications and recommendations, site and workplace specific requirements.

6. Regulations and legislation relevant to this unit standard include the following:

- Labour Act, No. 6, 1992
- Occupational Health and Safety Regulations No. 18, 1997 and all subsequent amendments.

## **Quality Assurance Requirements**

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on [www.nta.com.na](http://www.nta.com.na)

## **Elements and Performance Criteria**

### **Element 1: Plan and prepare for work**

#### **Range**

Measuring and calculating equipment is to include but is not limited to rulers, tape measures, trundle wheels, calculators.

#### **Performance Criteria**

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and applied.
- 1.2 Safety requirements are followed in accordance with safety plans and policies.
- 1.3 Measuring and calculating equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported.

### **Element 2: Perform estimations related to bricklaying work tasks**

#### **Performance Criteria**

- 2.1 Estimates of routine workplace measures are made.

### **Element 3: Obtain basic measurements**

#### **Range**

Measurements are to be in metric scale and cover all necessary calculations.

#### **Performance Criteria**

- 3.1 Method of obtaining the measurement is selected and applied.
- 3.2 Measurements are obtained, accurate to 1mm, using a rule or tape.
- 3.3 Measurements are confirmed and recorded.

#### **Element 4: Perform basic calculations related to bricklaying work tasks**

##### **Range**

Calculations may include but are not limited to length, area, weight, height, width, depth, volume, mass, perimeters, quantities, numbers, grade, percentages, addition, subtraction, multiplication and division.

Areas and volumes may include but are not limited to calculating of regular and irregular shapes such as rectangles, squares, circles, triangles and cubes that represent calculations taken in bricklaying operations.

##### **Performance Criteria**

- 4.1 Appropriate calculation method is selected.
- 4.2 Material size, weight, volume and quantity for a bricklaying work task are correctly calculated.
- 4.3 Results are confirmed and recorded.

##### **Registration Data**

<b>Subfield:</b>	General Construction
<b>Date first registered:</b>	28 September 2006
<b>Date this version registered:</b>	28 September 2006
<b>Anticipated review:</b>	2010
<b>Body responsible for review:</b>	Namibia Training Authority