



Learner PoE Guide

LP4: Financial and Mathematical Literacy

Learner Name and Surname	
Learner ID	
Company / Branch	
Date	
Learner Signature	

SAQA ID 9016: Represent, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts; NQF Level 4, 4 Credits

SAQA ID 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues; NQF Level 4, 6 Credits

SAQA ID 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems; NQF Level 4, 6 Credits

Table of Contents

FOREWORD TO THE LEARNER.....	4
<i>Assessment Process.....</i>	<i>4</i>
Assessment Process Steps.....	5
The Assessment Process Role-players.....	7
Competent vs. Not Yet Competent.....	9
Requirements for being deemed Competent.....	10
NOTE TO THE LEARNER.....	11
PORTFOLIO OF EVIDENCE.....	12
LEARNER'S PERSONAL INFORMATION.....	13
Registration Form Codes.....	14
<i>Learner ID.....</i>	<i>15</i>
<i>Learner CV.....</i>	<i>15</i>
<i>Learner Qualifications.....</i>	<i>15</i>
<i>Unit Standard details.....</i>	<i>16</i>
9016.....	16
7468.....	21
9015.....	25
PRE-ASSESSMENT PREPARATION SHEET.....	30
ASSESSMENT PLAN.....	33
DECLARATION OF AUTHENTICITY.....	34
APPEALS PROCEDURE.....	35
Appeals Form.....	36
FORMATIVE ASSESSMENT.....	37
LEARNER WORKBOOK.....	38
SUMMATIVE ASSESSMENT.....	39
KNOWLEDGE QUESTIONS.....	40
PRACTICAL ACTIVITIES.....	52
Practical Activity 1: Maths Literacy.....	52
Practical Activity Checklist.....	58
WITNESS TESTIMONY.....	61
LOGBOOK.....	63
ASSESSMENT ACTIVITIES CHECKLIST.....	70
LEARNER RE-ASSESSMENT PLAN.....	73
Re-Assessment Preparation Sheet.....	74
<i>Learner's Review of the Assessment Process.....</i>	<i>76</i>
<i>Learner Programme Evaluation.....</i>	<i>77</i>
GLOSSARY.....	78

Foreword to the Learner

The purpose of this guide is to provide the learners with process and requirements of successfully completing and submitting a Portfolio of Evidence for assessment against the unit standards of this learning programme:

Programme	Learning Programme 4: Maths Literacy
Unit Standards	SAQA ID 12417: Measure, estimate and calculate physical quantities and explore, critique and prove geometrical relationships in 2 and 3 dimensional space in the life and workplace of adult with increasing responsibilities; NQF Level 4, 4 Credits SAQA ID 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues; NQF Level 4, 6 Credits SAQA ID 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems; NQF Level 4, 6 Credits

Assessment in Outcomes Based Education is not only focused on what learners can do, but intends to develop learners holistically. In other words, learners are also required to demonstrate certain life-skills, which will not only enhance their learning, but will also ensure that these skills are transferable to their private lives.

In Outcomes-based education and training we use both formative and summative assessments:

- **Formative assessment** refers to assessment that takes place during the process of learning and teaching.
- **Summative assessment** is assessment for making a judgement about achievement. This is carried out when a learner is ready to be assessed at the end of a programme of learning.

Results initially collected for formative assessment, can be used for summative assessment, thus avoiding repetition.

Assessment Process



Learner Signature	Date
-------------------	------

Assessment Process Steps

Step 1: Plan and prepare for the assessment

Assessor needs to:

- Understand and review all the requirements of the assessment in terms of evidence required to prove competence
- Identify logistical arrangements that have to be made such as the venue
- Familiarise him/herself with assessment instruments and tools
- Identify and prepare any resources required for assessment, such as equipment, people and other resources for the assessment
- Ensure that he/she is familiar with the related policies - Assessment, Moderation, RPL and Appeals policy

Learner needs to:

- Be informed of, and agreement reached over: the requirements for the assessment; the roles and responsibilities of the learner with regard to his/her assessment; the special needs of the learner (and how these can be accommodated) and how the evidence is to be collected; and also guided in preparing for assessment by the facilitator and/or assessor as per the Pre-Assessment Preparation Sheet criteria and then complete and sign the document in agreement with the assessment process
- Be given the contact details of the facilitator, assessor and any other support person from the training provider, for possible future assessment process assistance needs
- Be guided in planning for the assessment by the facilitator and/or assessor as per the Assessment Plan criteria and then complete and sign the document in agreement with the assessment plan that he/she created
- Be guided in understanding of the requirements of authenticity as per the Declaration of Authenticity form by the facilitator and/or assessor and then complete and sign the document in agreement with the authenticity requirements in the assessment process
- Be guided in understanding the Appeals Policy and Procedure, as well as the Appeals Form by the facilitator and/or assessor and then complete and sign the declaration of understanding on the Appeals Procedure form
- Be given answers to any assessment process related questions

Document:

- ☐ Unit Standard
- ☐ Curriculum, Strategy and Alignment document
- ☐ Assessment Guide
 - ☐ Assessment Strategy and process
- ☐ Assessment related policies
- ☐ Assessment Feedback document
 - ☐ Assessment Preparation Checklist

Document:

- ☐ Learner Guide
- ☐ Learner Workbook
- ☐ Learner Portfolio of Evidence Guide
 - ☐ Pre-Assessment Preparation Sheet
 - ☐ Assessment Plan
 - ☐ Declaration of Authenticity
 - ☐ Declaration of understanding the Appeals Procedure
 - ☐ Assessment Activities Checklist
 - ☐ Learner ID, CV and certificates
 - ☐ Learner Workbook placeholder
 - ☐ Knowledge questions
 - ☐ Practical Activity for completion in the workplace
 - ☐ Witness Testimony for supervisor observation and feedback
 - ☐ Logbook

Learner Signature

Date

Step 2: Conduct and record the assessment

Assessor needs to:

- Conduct the assessment in an appropriate and nonthreatening manner and/or environment and use the assessment principles when assessing the evidence
- Review and assess the evidence as submitted by the learner / candidate in their Learner Portfolio of Evidence Guide, by referring to the Assessment Guide for guidelines and model answers (memoranda):
 - Learner workbook filed in the Learner PoE
 - Knowledge questions
 - Practical Activity completed in the workplace
 - Witness Testimony and Logbook completed in the workplace
- Make a judgement about the evidence against the criteria of the unit standard in the Final Assessment Recording (evidence grid) and the model answers provided, using the principles of good evidence as a guideline
- Record the assessment process undertaken and the assessment findings and decisions taken in the required format on the specific documentation in the Assessment Feedback document:
 - Assessment Checklist
 - Assessment record
 - Final assessment recording document
 - VARCCS evaluation
 - Assessment outcome
- When learners have to undergo re-assessment, they have to be given feedback so that they can concentrate on areas of weaknesses and only be re-assessed on NYC criteria. Re-assessment should comply with the following conditions:
 - Re-assessment should take place in the same situation or context and under the same conditions
 - The same method and assessment instrument may be used, but the task and materials should be changed, depending on the QMS requirements of the training provider.

Document:

- ☐ Unit Standard
- ☐ Learner PoE guide submitted for assessment
- ☐ Assessment Guide
- ☐ Assessment Feedback document:
 - ☐ Assessment Checklist
 - ☐ Assessment record
 - ☐ Final assessment recording document
 - ☐ VARCCS evaluation
 - ☐ Assessment outcome

Step 3: Provide assessment feedback to the learner

Assessor needs to:

- Provide the learner with feedback about the assessment conducted:
 - Provide feedback in both a positive and constructive manner
 - Advise / inform the learners of outstanding and/or required evidence
- Record all communication with the learner

Learner needs to:

- Confirm receipt, understanding and acceptance of the feedback by completing and signing the declaration in the Assessment Outcome section of the Assessment Feedback document

Document:

- ☐ Assessment Feedback document:
 - ☐ Assessment outcome document

Learner Signature	Date
-------------------	------

Step 4: Review and report on the assessment

Learner needs to:

- Review the assessment process by completing the Learner's Review of the Assessment Process (questionnaire)

Assessor needs to:

- Review the assessment process and report on it using either the:
 - Assessor' and Moderator's Review of the Assessment (questionnaire); or
 - Group Assessor' and Moderator's Review of the Assessment (questionnaire)

Training Provider needs to:

- Record the outcome of the assessment in the relevant quality management system database / matrix
- Record and/or submit the assessment results to the NLRD (National Learner Records Database) of the relevant ETQA
- Submit the specific number of learner portfolios for moderation, as per the training provider QMS
- Release the results of assessment to the relevant learner stakeholders, e.g. HR, mentor, supervisor; agreed to by the learner
- Manage any learner appeals against the assessment outcome, according to the Appeals Policy and Procedure
- All the documents or copies thereof, as prescribed previously, must be kept on file as part of the learner portfolio of evidence.
- Learner's portfolios of evidence must be readily available for internal and external moderation and verification by the appropriate practitioners, until after the ETQA verification process has taken place. The portfolios of evidence may then be kept (storage) or returned to the learner according to the training provider's QMS policy.

Document:

- ☐ Assessment Feedback document:
 - ☐ Learner's review of the assessment process
 - ☐ Assessor' and Moderator's Review of the Assessment
 - ☐ Group Assessor' and Moderator's Review of the Assessment
- ☐ Training Provider specific QMS documents for:
 - ☐ Record of assessment
 - ☐ submitting the results to the NLRD
 - ☐ moderation
 - ☐ learner assessment result release

The Assessment Process Role-players

The assessment team consists of the following people that each has a specific role and responsibilities to fulfil:

Learner	<p>Learners will participate in the facilitated classroom training section of the learning programme by participating in formative assessment class activities / exercises in the Learner Workbook.</p> <p>The learner needs to:</p> <ul style="list-style-type: none"> • Attend the learning / training session • Participate in the learning and form part of syndicate group / small workgroup for activities • Do research and prepare for participation during the training session • Complete the assignments, activities and portfolio <p>Learners will complete and submit their individual Portfolios of Evidence, using the Learner Portfolio of Evidence Guide to successfully create, gather and submit the required evidence for assessment, by completing the following:</p> <ul style="list-style-type: none"> • required administration documentation • completed Learner Workbook containing the formative assessment Class
----------------	--

Learner Signature

Date

	<p>Activities and Programme Reflection</p> <ul style="list-style-type: none"> • individual assignments and practical workplace activities: <ul style="list-style-type: none"> ○ Knowledge Questions ○ Practical Workplace Activity ○ Witness Testimony – supervisor confirmation of application of the knowledge and skills in the workplace ○ Assessment Activities Checklist – control checklist to ensure all required evidence is submitted by the learner <p>Assessments are meant to be as clear and transparent as possible, therefore learners should know:</p> <ul style="list-style-type: none"> • the kinds of assessment activities that they would be asked to perform • the standard and level of performance expected • the type and amount of evidence to be collected • their responsibility regarding the collection of evidence.
Facilitator	<p>It is the role of the facilitator to facilitate the theoretical classroom training and skills practice sessions to groups of learners.</p> <p>The facilitator is also responsible for:</p> <ul style="list-style-type: none"> • being available for questions regarding the assessment after the training has been completed • acting as Evidence Collection Facilitator, when facilitating formative assessment using the Class Activities in the Learner Workbook • facilitating only a section of the summative assessment - Knowledge Questions in the Learner Portfolio of Evidence Guide • guiding the learners on the use of the Portfolio of Evidence Guide • learning programme administration, e.g. attendance register, training report after the session, and any other related administration required by the training provider
Assessor	<p>The assessor needs to be:</p> <ul style="list-style-type: none"> • qualified as an assessor • registered as a constituent assessor with the relevant SETA • proficient in the subject matter of the learning area in which they are assessing and an expert in his/her knowledge of the unit standard requirements or qualification for which he/she is registered to assess - the assessor's subject matter knowledge should be at least of a level higher than the learner who is being assessed • proficient in the process of assessment - this means that they should: <ul style="list-style-type: none"> ○ Be familiar with the unit standards that they will be assessing ○ Be familiar with and use the assessment guides ○ Plan the assessment, which includes the selection, design and implementation of assessment activities. ○ Follow the assessment process, i.e. plan and agree on the assessment with the learner; guide the learner in the collection of evidence; conduct the assessment; provide feedback to the learner about the assessment decision ○ Record and report on assessment results ○ Participate in moderation processes ○ Review the assessment and make appropriate changes <p>The assessor needs to conduct an assessment subject to the following principles:</p> <ul style="list-style-type: none"> • the application of NQF principles • the application of the principles of credible assessment • the application of the principles of the collection of and quality of the evidence • the assessment being planned and designed on the basis of understanding the requirements of the unit standard, part qualification or qualification that the learner is seeking credit for <p>The assessor needs to establish a trusting relationship with learners – not only so that they can perform optimally during an assessment, but also so that the</p>

Learner Signature

Date

	learners will trust that the assessor has their interests at heart.
Moderator	<p>Internal moderators will be moderating assessment activities and supporting the assessors. Their task will be to do the quality assurance of the assessment activities in an ordered and structured way and develop the skills of assessors.</p> <p>Moderation ensures that people who are being assessed are assessed in a consistent, accurate and well-designed manner. It ensures that all assessors who assess a particular unit standard or qualification are using comparable assessment methods and are making similar and consistent judgements about the learners' performance.</p> <p>The moderator needs to be:</p> <ul style="list-style-type: none"> • qualified as a moderator • registered as constituent moderator with the relevant SETA • experienced in the related field of assessment and moderation <p>The moderator will, according to the Quality Management System of the training provider:</p> <ul style="list-style-type: none"> • Moderate 25% of all portfolios within 2 weeks of assessment or as per the requirements stated in the training provider QMS • Validate the quality of the judgements made. The judgement is either confirmed or overturned on valid grounds.
Verifier	<p>The moderation system will in turn be quality assured by the ETQAs who will have qualified verifiers in place to monitor moderation systems and support moderators. Some larger organisations will prefer to appoint internal verifiers to take a systemic view of internal assessment and moderation</p>
Training Provider	<p>The training provider needs to ensure that qualified facilitators, assessors and moderators are employed or contracted to perform the required functions, using quality materials as is required in the training provider quality management system.</p> <p>The training provider also needs to provide for the appeals process. If the learner / candidate is not happy about the process or findings of the assessment, he/she can put in an appeal to have the assessment reviewed by the training provider. This will ensure that candidates have a democratic right to overturn decisions that are not fair, not properly motivated or simply not believed. The training provider and ETQA should ensure that there is an appeals procedure in place, i.e. appeals against an assessment decision. Learners should be secure in the knowledge that they can appeal against an unfair assessment.</p>

Competent vs. Not Yet Competent

Learners being assessed are not allocated a percentage (for example 55%) on completion of the learning. Rather, they are either deemed competent or not yet competent.

Training is delivered using an outcome-based style of teaching and learning. Learners drive the process of learning and educators need to facilitate the creation of learning opportunities.

Once a learner has demonstrated his/her competence through an assignment, task, exam or performance, then s/he is awarded the credits related to that competence.

However, learners deemed not yet competent, are either given another chance to prove competence, or they are re-trained, or they are encouraged to move into a different field of learning.

Learner Signature	Date
-------------------	------

Requirements for being deemed Competent

Each unit standard indicates the requirements or standards of competence. These are written as assessment criteria. In an outcome-based system learners need to meet ALL these requirements before being deemed competent. However, SAQA has recommended that assessments be weighted according to the purpose of the qualification toward which the learner is learning.

Assessments are therefore designed around the requirements that are stated in the assessment criteria, and are therefore criterion-based. In a curriculum-based system, assessments were made around the norm of a group and were therefore norm-referenced.

A criterion-based assessment can only be performed using evidence that has been generated by the Learner. Types of evidence include direct evidence, indirect evidence and historic evidence:

- **Direct** – this is evidence that is collected directly by the assessor, for instance an assessor finding out whether you can bake a cake will watch you while you do it.
- **Indirect** – this is evidence that you have collected, signed off as authentic and submitted for assessment. For instance, a video of you baking a cake.
- **Historic** – this is evidence of your competence – as assessed by someone else. A certificate of competence issued to you when you completed a course is an example of historic evidence. Documents that you produced while doing a job (usually a few years ago) could also be historic evidence.

Evidence has to meet certain criteria. These criteria are summarised as **VARCS**:

- **V** is for **Valid**: the unit standard or qualification being assessed must require evidence that is submitted for assessment. Otherwise it is not important and cannot be used to find out whether you are competent or not.
- **A** is for **Authentic**: evidence that you submit must be your own work. Group work cannot be submitted as your own work because not only you worked on it.
- **R** is for **Reliable**: the evidence must be from a reliable source. A certificate of competence issued by a provider that is not accredited could be regarded as unreliable.
- **C** is for **Current**: the evidence must demonstrate that your competence is current. It doesn't help that you were able to run a 12 km race 5 years ago – can you still do it today? Currency is also related to the technology that is used to demonstrate competence. It does not help that you are able to boil water using a pot on a stove when electric kettles are the current method used to boil water.
- **S** is for **Sufficient**: the unit standards have several assessment criteria that need to be satisfied. The evidence must satisfy all the criteria or else it is not sufficient.

However, evidence is collected using some kind of instrument. These instruments take different forms. Some instruments include questionnaires, interview schedules, simulations, role-play, observation checklists and products.

Learner Signature	Date
-------------------	------

Note to the Learner

Dear Learner,

You have opted to undergo assessment and as a result have been presented with this PoE (Portfolio of Evidence). Please go through all sections of this PoE very carefully before submission and make sure that you have included all the information and evidence requested. **Please take note of the following:**

Unit Standard:

A copy of the unit standard has been included. The assessment has been designed in order to meet all requirements as set by this unit standard.

Pre-Assessment Preparation Sheet:

The first step towards completing this PoE is to read through the Pre-Assessment Preparation Sheet. This form contains valuable background information. Your assessor will not be able to assess your portfolio if you have not read and signed this document.

Assessment Plan:

You can use the assessment plan to write down the dates on which you plan to meet specific targets.

Declaration of Authenticity:

Please complete the declaration of authenticity to declare that the evidence that you submit in this PoE is your own work, with the exception of those that you list in the section provided. Your assessor will not be able to assess your portfolio if you have not read, completed and signed this document.

Appeals Procedure and Form

Familiarise yourself with the appeals procedure and sign the document as requested. You will only use the Appeals Form if you would like to appeal against the assessment decision.

Assessment Instruments:

By completing the assessment instruments you will generate / gather the evidence required to meet the outcomes of the unit standard(s). Please follow instructions carefully for both the formative and summative assessments.

Assessment Activities Checklist

As part of the quality management process used by the training provider and the SETA, the learner and his/her supervisor are required to check and sign off that all activities have been completed and submitted in the PoE. Please complete this form, before submitting your PoE.

Learner's Review of the Assessment Process

As part of the quality management process used by the training provider and the SETA, the learner is required to provide feedback to the training provider about the assessment process. Please complete this form, before submitting your PoE.

Please note that you are welcome to contact your facilitator / assessor at any stage should you have any questions pertaining to the assessment.

Learner Signature	Date

Portfolio of Evidence

Please complete the following documents and submit as part of your Portfolio of Evidence:

- Learner's Personal Information form
- Learner ID, CV and Qualifications
- Unit Standard Details
- Assessment Contract document
- Declaration of Authenticity document

Learner Signature	Date
-------------------	------

Learner's Personal Information

Please provide the following information for SAQA National Learner Database. The following page provides the information form codes:

Learner's Last Name		
Learner's First Name (s)		
Learner title		
Learner birth date (YYYYMMDD)		
ID Number (attach a copy of ID)		
Equity code		
Nationality code		
Gender code		
Citizen resident status code		
Home language code		
Socioeconomic status code		
Disability status code		
Learner home address		
Learner postal address		
Province code		
Contact Details	Telephone	
	Cell phone	
	E-mail	
	Fax	
Company Details	Company Name	
	Contact Person (Supervisor)	
	Contact Person Contact Number	
	Postal Address	
Learner's Designation		
Date of Submission		

Learner Signature	Date
-------------------	------

Registration Form Codes

Alternative ID type	Equity code	Nationality code		
1 National ID 521 SAQA Member ID 527 Passport Number or Foreign ID Number 529 Driver's License 531 Temporary ID number 533 None 537 Student Number 538 Work Permit Number 539 Employee Number 540 Birth Certificate Number 541 HSRC Register Number 561 ETQA Record Number 565 Refugee Number 535 Unknown	BA Black: African BC Coloured BI Indian / Asian Oth Other WH White U Unknown	SA South Africa SDC SADC except SA ANG Angola BOT Botswana LES Lesotho MAL Malawi MAU Mauritius MOZ Mozambique NAM Namibia SEY Seychelles SWA Swaziland TAN Tanzania ZAI Zaire ZAM Zambia ZIM Zimbabwe	AIS Asian countries AUS Australia Oceania countries EUR European countries NOR North American countries SOU South / Central American c ROA Rest of Africa OOC Other & rest of Oceania NOT N/A: Institution U Unspecified	
Citizen/residence status	Home language code	Gender code	Province code	
U Unknown SA South Africa O Other D Dual (SA plus other) PR Permanent Resident	Afr Afrikaans Eng English Nde isiNdebele Oth Other SASL South African Sign Language Sep sePedi Ses seSotho Set seTswana Swa siSwati Tsh tshiVenda Xho isiXhosa Xit xiTsonga Zul isiZulu U Unknown	M Male F Female U Unknown	1 Western Cape 2 Eastern Cape 3 Northern Cape 4 Free State 5 Kwazulu/Natal 6 North West 7 Gauteng 8 Mpumalanga 9 Limpopo X Outside South Africa N South Africa National	
Disability status		Socioeconomic Status		
N None 01 Sight (even with glasses) 02 Hearing (even with a hearing aid) 03 Communication (talking, listening) 04 Physical (moving, standing, grasping) 05 Intellectual (difficulties in learning); retardation 06 Emotional (behavioural or psychological) 07 Multiple 09 Disabled but unspecified U Unknown disability status		01 Employed 02 Unemployed, seeking work 03 Not working, not looking 04 Home-maker (not working) 06 Scholar/student (not w.) 07 Pensioner/retired (not w.) 08 Not working - disabled 09 Not working - no wish to w 10 Not working - N.E.C. 97 N/A: aged <15 98 N/A: Institution U Unspecified		

Learner Signature	Date
-------------------	------

Learner ID

*Insert a **certified** copy of your Identify Document here:*

Learner CV

Insert a copy of your full CV (Curriculum Vitae) here:

Learner Qualifications

Insert certified copies of relevant qualifications here:

Learner Signature	Date
-------------------	------

Unit Standard details

9016



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

REGISTERED UNIT STANDARD:

Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts

SAQA US ID	UNIT STANDARD TITLE			
9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts			
ORIGINATOR				
SGB Math Literacy, Math, Math Sciences L 2 -4				
PRIMARY OR DELEGATED QUALITY ASSURANCE FUNCTIONARY				
-				
FIELD			SUBFIELD	
Field 10 - Physical, Mathematical, Computer and Life Sciences			Mathematical Sciences	
ABET BAND	UNIT STANDARD TYPE	PRE-2009 NQF LEVEL	NQF LEVEL	CREDITS
Undefined	Regular-Fundamental	Level 4	NQF Level 04	4
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Reregistered		2018-07-01	2023-06-30	SAQA 06120/18
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2024-06-30		2027-06-30		

This unit standard does not replace any other unit standard and is not replaced by any other unit standard.

PURPOSE OF THE UNIT STANDARD

This unit standard is designed to provide credits towards the mathematical literacy requirements of the NQF at level 4. The essential purposes of the mathematical literacy requirements are that, as the learner progresses with confidence through the levels, the learner will grow in:

- ☐ An insightful use of mathematics in the management of the needs of everyday living to become a self-managing person.
- ☐ An understanding of mathematical applications that provides insight into the learner's present and future occupational experiences and so develop into a contributing worker.
- ☐ The ability to voice a critical sensitivity to the role of mathematics in a democratic society and so become a participating citizen.

People credited with this unit standard are able to:

- ☐ Measure, estimate, and calculate physical quantities in practical situations relevant to the adult with increasing responsibilities in life or the workplace

Learner Signature	Date

16

- ☐ Explore analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three dimensional geometrical situations

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

The credit value is based on the assumption that people starting to learn towards this unit standard are competent in Mathematical Literacy and Communications at NQF level 3.

UNIT STANDARD RANGE

The scope of this unit standard includes length, surface area, volume, mass, speed ; ratio, proportion; making and justifying conjectures.

Contexts relevant to the adult, the workplace and the country.

More detailed range statements are provided for specific outcomes and assessment criteria as needed.

Specific Outcomes and Assessment Criteria:

SPECIFIC OUTCOME 1

Measure, estimate, and calculate physical quantities in practical situations relevant to the adult.

OUTCOME NOTES

Measure, estimate, and calculate physical quantities in practical situations relevant to the adult with increasing responsibilities in life or the workplace.

OUTCOME RANGE

- ☐ Basic instruments to include those readily available such as rulers, measuring tapes, measuring cylinders or jugs, thermometers, spring or kitchen balances, watches and clocks.
- ☐ In situations which necessitate it such as in the workplace, the use of more accurate instruments such as vernier callipers, micrometer screws, stop watches and chemical balances.
- ☐ Quantities to estimate or measure to include length/distance, area, mass, time, speed acceleration and temperature.
- ☐ Distinctions between mass and weight, speed and acceleration.
- ☐ The quantities should range from the low or small to the high or large.
- ☐ Mass, volume temperature, distance, and speed values are used in practical situations relevant to the young adult or the workplace.
- ☐ Calculate heights and distances using Pythagoras' theorem.
- ☐ Calculate surface areas and volumes of right prisms (i.e., end faces are polygons and the remaining faces are rectangles) cylinders, cones and spheres from measurements in practical situations relevant to the adult or in the workplace.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

1. Scales on the measuring instruments are read correctly.

ASSESSMENT CRITERION 2

2. Quantities are estimated to a tolerance justified in the context of the need.

ASSESSMENT CRITERION 3

3. The appropriate instrument is chosen to measure a particular quantity.

ASSESSMENT CRITERION 4

4. Quantities are measured correctly to within the least step of the instrument.

ASSESSMENT CRITERION 5

5. Appropriate formulae are selected and used.

Learner Signature	Date

ASSESSMENT CRITERION 6

6. Calculations are carried out correctly and the least steps of instruments used are taken into account when reporting final values.

ASSESSMENT CRITERION 7

7. Symbols and units are used in accordance with SI conventions and as appropriate to the situation.

SPECIFIC OUTCOME 2

Explore, analyse & critique, describe & represent, interpret and justify geometrical relationships.

OUTCOME NOTES

Explore, analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three dimensional geometrical situations.

OUTCOME RANGE

- ☐ Applications taken from different contexts such as packaging, arts, building construction, dressmaking.
- ☐ The operation of simple linkages and mechanisms such as car jacks.
- ☐ Top, front and side views of objects are represented.
- ☐ Use rough sketches to interpret, represent and describe situations.
- ☐ The use of available technology (e.g., isometric paper, drawing instruments, software) to represent objects.
- ☐ Use and interpret scale drawings of plans (e.g., plans of houses or factories; technical diagrams of simple mechanical household or work related devices,
- ☐ Road maps relevant to the country.
- ☐ World maps.
- ☐ International time zones.
- ☐ The use of the Cartesian co-ordinate system in determining location and describing relationships in at least two dimensions.

ASSESSMENT CRITERIA**ASSESSMENT CRITERION 1**

1. Descriptions are based on a systematic analysis of the shapes and reflect the properties of the shapes accurately, clearly and completely.

ASSESSMENT CRITERION 2

2. Descriptions include quantitative information appropriate to the situation and need.

ASSESSMENT CRITERION 3

3. 3-dimensional objects are represented by top, front and side views.

ASSESSMENT CRITERION 4

4. Different views are correctly assimilated to describe 3-dimensional objects.

ASSESSMENT CRITERION 5

5. Available and appropriate technology is used in producing and analysing representations.

ASSESSMENT CRITERION 6

6. Relations of distance and positions between objects are analysed from different views.

ASSESSMENT CRITERION 7

7. Conjectures as appropriate to the situation, are based on well-planned investigations of geometrical properties.

ASSESSMENT CRITERION 8

Learner Signature	Date

8. Representations of the problems are consistent with and appropriate to the problem context. The problems are represented comprehensively and in mathematical terms.

ASSESSMENT CRITERION 9

9. Results are achieved through efficient and correct analysis and manipulation of representations.

ASSESSMENT CRITERION 10

10. Problem-solving methods are presented clearly, logically and in mathematical terms.

ASSESSMENT CRITERION 11

11. Reflections on the chosen problem solving strategy reveal strengths and weaknesses of the strategy.

ASSESSMENT CRITERION 12

12. Alternative strategies to obtain the solution are identified and compared in terms of appropriateness and effectiveness.

UNIT STANDARD ACCREDITATION AND MODERATION OPTIONS

- ☐ This Unit Standard will be assessed by an assessor and moderated by a moderator, registered with the relevant accredited ETQA responsible for the quality assurance of this Unit Standard.
- ☐ Any institution offering learning that will enable achievement of this Unit Standard must be accredited as a provider through the appropriate quality assuring ETQA, or Learning Programme approval with an ETQA that has a Memorandum of Understanding with the quality assuring ETQA.
- ☐ Verification (external moderation) of assessment and moderation by the provider, will be conducted by the relevant quality assuring ETQA according to the moderation guidelines in the relevant Qualification and the agreed ETQA policy and procedures.
- ☐ An individual wishing to be assessed through RPL against this Unit Standard, may apply to an assessment agency or provider institution accredited by the relevant quality assuring ETQA, or by an ETQA that has a formal agreement/accreditation with the relevant quality assuring ETQA.

UNIT STANDARD ESSENTIAL EMBEDDED KNOWLEDGE

The following essential embedded knowledge will be assessed through assessment of the specific outcomes in terms of the stipulated assessment criteria. Candidates are unlikely to achieve all the specific outcomes, to the standards described in the assessment criteria, without knowledge of the listed embedded knowledge. This means that the possession or lack of the knowledge can be inferred directly from the quality of the candidate's performance against the standards.

- ☐ Properties of geometric shapes
- ☐ Surface area and volume
- ☐ Mathematical argument and evaluation based on logical deduction
- ☐ Spatial interrelationships

Critical Cross-field Outcomes (CCFO):

UNIT STANDARD CCFO IDENTIFYING

- ☐ Identify and solve problems using critical and creative thinking:
Solve a variety of problems relevant to the adult with increasing responsibilities involving space, shape and time using geometrical techniques.

UNIT STANDARD CCFO COLLECTING

- ☐ Collect, analyse, organise and critically evaluate information:
Gather, organise, evaluate and critique information about objects and processes.

Learner Signature	Date
-------------------	------

UNIT STANDARD CCFO COMMUNICATING

☐ Communicate effectively:

Use everyday language and mathematical language to describe properties, processes and problem solving methods.

UNIT STANDARD CCFO SCIENCE

☐ Use mathematics:

Use mathematics to analyse, describe and represent realistic and abstract situations and to solve problems relevant to the adult with increasing responsibilities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD:

ID	QUALIFICATION TITLE	OLD LEVEL	NEW LEVEL	STATUS	END DATE	QUALITY ASSURING BODY
93996	Further Education and Training Certificate: Contact Centre Operations	Level 4	NQF Level 04	Reregistered	2021-06-30	As per Learning Programmes recorded against this Qual

Learner Signature	Date
-------------------	------

7468

**SOUTH AFRICAN QUALIFICATIONS AUTHORITY****REGISTERED UNIT STANDARD:**

Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues

SAQA US ID	UNIT STANDARD TITLE			
7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues			
ORIGINATOR				
SGB Math Literacy, Math, Math Sciences L 2 -4				
PRIMARY OR DELEGATED QUALITY ASSURANCE FUNCTIONARY				
-				
FIELD			SUBFIELD	
Field 10 - Physical, Mathematical, Computer and Life Sciences			Mathematical Sciences	
ABET BAND	UNIT STANDARD TYPE	PRE-2009 NQF LEVEL	NQF LEVEL	CREDITS
Undefined	Regular-Fundamental	Level 4	NQF Level 04	6
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Reregistered		2018-07-01	2023-06-30	SAQA 06120/18
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2024-06-30		2027-06-30		

This unit standard does not replace any other unit standard and is not replaced by any other unit standard.

PURPOSE OF THE UNIT STANDARD

This unit standard will be useful to people who aim to achieve recognition at some level in Further Education and Training or to meet the Fundamental requirement of a wide range of qualifications registered on the National Qualifications Framework.

People credited with this unit standard are able to:

- ☐ Use mathematics to plan and control financial instruments including insurance and assurance, unit trusts, stock exchange dealings, options, futures and bonds
- ☐ Use simple and compound interest to make sense of and define a variety of situations including mortgage loans, hire purchase, present values, annuities and sinking funds
- ☐ Investigate various aspects of costs and revenue including marginal costs, marginal revenue and optimisation of profit
- ☐ Use mathematics to debate aspects of the national and global economy, including tax, productivity and the equitable distribution of resources.

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

The credit value is based on the assumption that people starting to learn towards this unit

Learner Signature	Date

21

standard are competent in Mathematics and Communications at NQF level 3.

UNIT STANDARD RANGE

Range statements are provided for specific outcomes and assessment criteria as needed.

Specific Outcomes and Assessment Criteria:

SPECIFIC OUTCOME 1

Use mathematics to plan and control financial instruments.

OUTCOME RANGE

- ☐ insurance and assurance, unit trusts, stock exchange dealings, options, futures and bonds.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

1. Plans are sufficient to ensure effective control of financial instruments.

ASSESSMENT CRITERION 2

2. Calculations are carried out using computational tools efficiently and correctly and solutions obtained are verified in terms of the context.

ASSESSMENT CRITERION 3

3. Measures used for control purposes are appropriate to the need and are in line with control plans.

SPECIFIC OUTCOME 2

Use simple and compound interest to make sense of and define a variety of situations.

OUTCOME RANGE

- ☐ mortgage loans, hire purchase, present values, annuities and sinking funds.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

1. The differences between simple and compound interest are described in terms of their common applications and effects.

ASSESSMENT CRITERION 2

2. Methods of calculation are appropriate to the problem types.

ASSESSMENT CRITERION 3

3. Computational tools are used efficiently and correctly and solutions obtained are verified in terms of the context or problem.

ASSESSMENT CRITERION 4

4. Solutions to calculations are used effectively to define the changes over a period of time.

SPECIFIC OUTCOME 3

Investigate various aspects of costs and revenue.

OUTCOME RANGE

Aspects of costs and revenue include:

- ☐ marginal costs, marginal revenue and optimisation of profit

Learner Signature	Date
-------------------	------

ASSESSMENT CRITERIA**ASSESSMENT CRITERION 1**

1. Values are calculated correctly.

ASSESSMENT CRITERION 2

2. Mathematical tools and systems are used effectively to determine and describe the relationships between the various aspects of cost and revenue.

ASSESSMENT CRITERION 3

3. Terminology is used in the correct context.

ASSESSMENT CRITERION 4

4. Reasonable methods are described for the control of costs and optimisation of profits in relation to given data.

SPECIFIC OUTCOME 4

Use mathematics to debate aspects of the national and global economy.

OUTCOME RANGE

Aspects include:

- ☐ exchange rates, imports, exports, comparative effectiveness of currency in relation to remuneration, monetary policy and the control of inflation.

ASSESSMENT CRITERIA**ASSESSMENT CRITERION 1**

1. Values are calculated correctly.

ASSESSMENT CRITERION 2

2. Mathematical tools and systems are used effectively to determine, compare and describe aspects of the national and global economy.

ASSESSMENT CRITERION 3

3. Debating points are based on well-reasoned arguments and are supported by mathematical information.

UNIT STANDARD ACCREDITATION AND MODERATION OPTIONS

- ☐ This Unit Standard will be assessed by an assessor and moderated by a moderator, registered with the relevant accredited ETQA responsible for the quality assurance of this Unit Standard.
- ☐ Any institution offering learning that will enable achievement of this Unit Standard must be accredited as a provider through the appropriate quality assuring ETQA, or Learning Programme approval with an ETQA that has a Memorandum of Understanding with the quality assuring ETQA.
- ☐ Verification (external moderation) of assessment and moderation by the provider, will be conducted by the relevant quality assuring ETQA according to the moderation guidelines in the relevant Qualification and the agreed ETQA policy and procedures.
- ☐ An individual wishing to be assessed through RPL against this Unit Standard, may apply to an assessment agency or provider institution accredited by the relevant quality assuring ETQA, or by an ETQA that has a formal agreement/accreditation with the relevant quality assuring ETQA.

UNIT STANDARD ESSENTIAL EMBEDDED KNOWLEDGE

The following essential embedded knowledge will be assessed through assessment of the specific outcomes in terms of the stipulated assessment criteria. Candidates are unlikely to achieve all the specific outcomes, to the standards described in the assessment criteria,

Learner Signature	Date
-------------------	------

without knowledge of the listed embedded knowledge. This means that the possession or lack of the knowledge can be inferred directly from the quality of the candidate's performance against the standards.

- ☐ Budgets
- ☐ Terminology and definitions associated with financial situations
- ☐ Estimation and approximation
- ☐ Compound increase and decrease

Critical Cross-field Outcomes (CCFO):

UNIT STANDARD CCFO IDENTIFYING

- ☐ Identify and solve problems using critical and creative thinking:
Solving a variety of numerical and financial problems
- ☐ Use mathematics:
Use mathematics to analyse, describe and represent financial situations and to solve problems.

UNIT STANDARD CCFO COLLECTING

- ☐ Collect, analyse, organise and critically evaluate information:
Gather, organise, evaluate and interpret financial information to plan and make provision for monitoring budgets and other financial situations.

UNIT STANDARD CCFO COMMUNICATING

- ☐ Communicate effectively:
Use everyday language and mathematical language to describe relationships, processes and problem solving methods.

QUALIFICATIONS UTILISING THIS UNIT STANDARD:

ID	QUALIFICATION TITLE	OLD LEVEL	NEW LEVEL	STATUS	END DATE	QUALITY ASSURING BODY
93996	Further Education and Training Certificate: Contact Centre Operations	Level 4	NQF Level 04	Reregistered	2021-06-30	As per Learning Programmes recorded against this Qual

Learner Signature	Date
-------------------	------

9015

**SOUTH AFRICAN QUALIFICATIONS AUTHORITY****REGISTERED UNIT STANDARD:**

Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems

SAQA US ID	UNIT STANDARD TITLE			
9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems			
ORIGINATOR				
SGB Math Literacy, Math, Math Sciences L 2 -4				
PRIMARY OR DELEGATED QUALITY ASSURANCE FUNCTIONARY				
-				
FIELD			SUBFIELD	
Field 10 - Physical, Mathematical, Computer and Life Sciences			Mathematical Sciences	
ABET BAND	UNIT STANDARD TYPE	PRE-2009 NQF LEVEL	NQF LEVEL	CREDITS
Undefined	Regular-Fundamental	Level 4	NQF Level 04	6
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Reregistered		2018-07-01	2023-06-30	SAQA 06120/18
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2024-06-30		2027-06-30		

This unit standard does not replace any other unit standard and is not replaced by any other unit standard.

PURPOSE OF THE UNIT STANDARD

This Unit Standard is designed to provide credits towards the mathematical literacy requirement of the NQF at Level 4. The essential purposes of the mathematical literacy requirement are that, as the learner progresses with confidence through the levels, the learner will grow in:

A confident, insightful use of mathematics in the management of the needs of everyday living to become a self-managing person

An understanding of mathematical applications that provides insight into the learner's present and future occupational experiences and so develop into a contributing worker

The ability to voice a critical sensitivity to the role of mathematics in a democratic society and so become a participating citizen.

People credited with this unit standard are able to:

Critique and use techniques for collecting, organising and representing data.

Learner Signature	Date

25

Use theoretical and experimental probability to develop models, make predictions and study problems.

Critically interrogate and use probability and statistical models in problem solving and decision making in real-world situations.

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

The credit value is based on the assumption that people starting to learn towards this unit standard are competent in Mathematical Literacy and Communications at NQF level 3.

UNIT STANDARD RANGE

This unit standard includes the requirement to:

Critique the selection of samples in terms of size and representativeness.

Identify features of distributions: symmetry and asymmetry, clusters and gaps, and possible outliers in data and consider their effects on the interpretation of the data. Critique the use of data from samples to estimate population statistics.

Apply an understanding of random phenomena to critique and interpret real life and work related situations.

Critique arguments based on probability in terms of an understanding of random behaviour and the law of large numbers (e.g. lottery 'hot' numbers).

Demonstrate understanding of and determine probabilities for independent, disjoint and complementary events.

Judge or critique probability values.

Further range statements are provided for specific outcomes and assessment criteria as needed.

Specific Outcomes and Assessment Criteria:

SPECIFIC OUTCOME 1

Critique and use techniques for collecting, organising and representing data.

OUTCOME NOTES

Specific purposes include:

Determining trends in societal issues such as crime and health;

Identifying relevant characteristics of target groups such as age range, gender, socio-economic group, cultural belief, and performance;

Considering the attitudes or opinions of people on issues.

OUTCOME RANGE

Techniques include:

The formulation of questions in surveys to obtain data;

The methods and devices (e.g. tables of random numbers, calculators or computers) used to select random samples;

Different instruments and scales such as yes/no (dichotomous) and 5 point (Likert scales) and discrete and continuous variables;

Evaluation of data gathering techniques and of data collected so that faults and inconsistencies are identified;

Calculating measures of center and spread such as mean, median, mode, range; and variance;

Using scatter plots and lines of best fit to represent the association between two variables;

Correlation.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

1 Situations or issues that can be dealt with through statistical methods are identified correctly.

ASSESSMENT CRITERION 2

2. Appropriate methods for collecting, recording and organising (data are used so as to maximise efficiency and ensure the resolution of a problem or issue.

Learner Signature	Date

ASSESSMENT CRITERION 3

3. Data sources and databases are selected in a manner that ensures the representativeness of the sample and the validity of resolutions.

ASSESSMENT CRITERION 4

4. Activities that could result in contamination of data are identified and explanations are provided of the effects of contaminated data.

ASSESSMENT CRITERION 5

5. Data is gathered using methods appropriate to the data type and purpose for gathering the data.

ASSESSMENT CRITERION 6

6. Data collection methods are used correctly.

ASSESSMENT CRITERION 7

7 Calculations and the use of statistics are correct.

ASSESSMENT CRITERION 8

8. Graphical representations and numerical summaries are consistent with the data, are clear and appropriate to the situation and target audience.

ASSESSMENT CRITERION 9

9. Resolutions for the situation or issue are supported by the data and are validated in terms of the context.

SPECIFIC OUTCOME 2

Use theoretical and experimental probability to develop models.

OUTCOME NOTES

Use theoretical and experimental probability to develop models, make predictions and study problems.

OUTCOME RANGE

Performance in this specific outcome includes the requirement to:

Use the laws governing independent, complementary and mutually exclusive events.

Determine theoretical and experimental probabilities.

Use simulations (e.g. six sided spinners, random number generators in calculators or computers) for comparing experimental results (e.g.the rolling of a die) with mathematical expectations.

Compare experimental results with mathematical expectations using probability models.

ASSESSMENT CRITERIA**ASSESSMENT CRITERION 1**

1. Experiments and simulations are chosen and/or designed appropriately in terms of the situation to be modelled.

ASSESSMENT CRITERION 2

2. Predictions are based on validated experimental or theoretical probabilities.

ASSESSMENT CRITERION 3

3 The results of experiments and simulations are interpreted correctly in terms of the real context.

ASSESSMENT CRITERION 4

Learner Signature	Date

4 The outcomes of experiments and simulations are communicated clearly.

SPECIFIC OUTCOME 3

Critically interrogate and use probability and statistical models.

OUTCOME NOTES

Critically interrogate and use probability and statistical models in problem solving and decision making in real world situations.

OUTCOME RANGE

Performance in this specific outcome includes, the requirement to:

Source and interpret information from a variety of sources including databases.

Manipulate data in different ways to support opposing conclusions.

Evaluate statistically based arguments and make recommendations and describe the use and misuse of statistics in society.

Make inferences about a population on the basis of a sample selected from it.

Make comparisons between predictions and actual occurrences.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

1. Statistics generated from the data are interpreted meaningfully and interpretations are justified or critiqued.

ASSESSMENT CRITERION 2

2. Assumptions made in the collection or generation of data and statistics are defined or critiqued appropriately.

ASSESSMENT CRITERION 3

3. Tables, diagrams, charts and graphs are used or critiqued appropriately in the analysis and representation of data, statistics and probability values.

ASSESSMENT CRITERION 4

4 Predictions, conclusions and judgements are made on the basis of valid arguments and supporting data, statistics and probability models.

ASSESSMENT CRITERION 5

5. Evaluations of the statistics identify potential sources of bias, errors in measurement, potential uses and misuses and their effects.

ASSESSMENT CRITERION RANGE

Effects on arguments, judgements, conclusions and ultimately the audience.

UNIT STANDARD ACCREDITATION AND MODERATION OPTIONS

☐ This Unit Standard will be assessed by an assessor and moderated by a moderator, registered with the relevant accredited ETQA responsible for the quality assurance of this Unit Standard.

☐ Any institution offering learning that will enable achievement of this Unit Standard must be accredited as a provider through the appropriate quality assuring ETQA, or Learning Programme approval with an ETQA that has a Memorandum of Understanding with the quality assuring ETQA.

☐ Verification (external moderation) of assessment and moderation by the provider, will be conducted by the relevant quality assuring ETQA according to the moderation guidelines in the relevant Qualification and the agreed ETQA policy and procedures.

☐ An individual wishing to be assessed through RPL against this Unit Standard, may apply to an assessment agency or provider institution accredited by the relevant quality assuring ETQA, or by an ETQA that has a formal agreement/accreditation with the relevant quality assuring ETQA.

UNIT STANDARD ESSENTIAL EMBEDDED KNOWLEDGE

Learner Signature	Date

The following essential embedded knowledge will be assessed through assessment of the specific outcomes in terms of the stipulated assessment criteria. Candidates are unlikely to achieve all the specific outcomes, to the standards described in the assessment criteria, without knowledge of the listed embedded knowledge. This means that the possession or lack of the knowledge can be inferred directly from the quality of the candidate's performance against the standards.

Methods for collecting, organising and analysing data

Measures of center and spread

Techniques for representing and evaluating statistics

Randomness, probability and association.

Critical Cross-field Outcomes (CCFO):

UNIT STANDARD CCFO IDENTIFYING

Identify and solve problems using critical and creative thinking:

Solve a variety of problems based on data, statistics and probability.

UNIT STANDARD CCFO COLLECTING

Collect, analyse, organise and critically evaluate information:

Gather, organise, evaluate and critically interpret data and statistics to make sense of situations.

UNIT STANDARD CCFO COMMUNICATING

Communicate effectively:

Use everyday language and mathematical language to represent data, statistics and probability and effectively communicate or critique conclusions.

UNIT STANDARD CCFO CONTRIBUTING

Use mathematics:

Use mathematics to critically analyse, describe and represent situations and to solve problems related to the life or work situations of the adult with increasing responsibilities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD:

ID	QUALIFICATION TITLE	OLD LEVEL	NEW LEVEL	STATUS	END DATE	QUALITY ASSURING BODY
93996	Further Education and Training Certificate: Contact Centre Operations	Level 4	NQF Level 04	Reregistered	2021-06-30	As per Learning Programmes recorded against this Qual

Learner Signature	Date
-------------------	------

Pre-Assessment Preparation Sheet

This document serves to orientate and prepare you in the assessment(s) that you are about to embark in. It is a map that informs you of the steps involved in the assessment process and will allow you to prepare for your assessment(s), helping to set you at ease, and give you the best opportunity for success.

This document **MUST** be completed by the Learner in the presence of the Assessor / Facilitator conducting the Pre-Assessment Process:

Programme	LP 4: Financial and Mathematical Literacy		
Unit Standards	SAQA ID 9016: Represent, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts; NQF Level 4, 4 Credits SAQA ID 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues; NQF Level 4, 6 Credits SAQA ID 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems; NQF Level 4, 6 Credits		
Venue of Pre-Assessment Meeting		Date	
Learner Full Name			
Learner ID			
Facilitator Full Name			
Assessor Full Name		Assessor Number	
Moderator Full Name		Moderator Number	

Please read the discussion points below. Tick yes, indicating that you have read and understand the information provided. Please contact your facilitator or assessor if you do not understand or need additional information on any of the points below:

Please take note of the following discussion points:	I have read and understand the information provided:		
	Yes	No	Comments
1. Were you welcomed and made to feel at ease?			
2. Was the purpose and objectives of the meeting explained?			
3. Was the Assessment process and principles of good assessment is explained?			
4. The purpose of the assessment is to determine and recognise my competence against the unit standards in this qualification			
5. I understand the roles and responsibilities of all parties involved in the assessment: <ul style="list-style-type: none"> The learner: To complete and submit all required evidence by submission date. The assessor: To assess evidence submitted and provide learner with feedback. The moderator: To quality assure the assessment process. Assessment results are subject to change pending moderation. 			
6. Were you informed of your rights, appeal process and reassessment policies? <ul style="list-style-type: none"> You have the right to appeal against any judgement given as a result of any assessment. You must have valid reasons for doing this 			

Learner Signature	Date
-------------------	------

Please take note of the following discussion points:	I have read and understand the information provided:		
	Yes	No	Comments
<ul style="list-style-type: none"> You have the right to an interpreter if you need one to perform this function. However if one of the learning assumptions for the standard is that you are competent within the language of assessment, you may not have an interpreter You can ask that an impartial observer attend any assessment. This observer may not take any part of the assessment If you do not agree with the assessment you have the right to have your assessment internally moderated. If you still do not agree with the result of the assessment you can ask that the ETQA perform an external moderated on the assessment. If any verification upholds the assessment findings you will be held liable for all costs of the verifications. If any verification rules that you have been aggrieved as a result of the assessment, your assessor will be liable for all costs of verification 			
7. I will communicate any special or particular needs that may affect my performance during the assessment to my Assessor 15 working days before the submission date. <ul style="list-style-type: none"> Special and particular needs, i.e. disabilities, language and literacy needs. Special needs will be provided for as long as the validity of the assessment is not compromised. 			
8. This PoE (Portfolio of Evidence) contains the following Assessment Instruments that have to be completed and submitted for every Skills Programme: <ul style="list-style-type: none"> Learner Workbook (Formative Assessment) Reflection Knowledge questions (Summative Assessment) Practical assignments Witness Testimony Logbook Note: The assessor can be contacted with any questions regarding the assessment.			
9. I am aware that all evidence has to be: <ul style="list-style-type: none"> Valid (evidence provided will speak to the unit standard) Authentic (all evidence submitted will be my own work, I will indicate where this is not the case. If it found that I am guilty of plagiarism, I will have to apply to be assessed again and pay the bearing associated assessment costs) Reliable (evidence is from a reliable source) Current (evidence can not be older than 3 years) Sufficient (prove consistent competence – not a “once-off” occurrence) 			
10. I know that I have to complete all sections of this PoE and sign all sections where requested.			
11. The assessor will evaluate the evidence submitted in my PoE against the Unit Standard Specific Outcomes with their associated Assessment Criteria, Essential Embedded Knowledge and CCFOs that is outlined in the Unit Standards related to this Skills Programme in the qualification.			
12. The submission date of the PoE has been communicated to me <i>(fill in date on the right hand side here)</i> <ul style="list-style-type: none"> No late submissions will be accepted. An extension request has to be submitted 5 working days prior to the agreed submission date. We reserve the right to charge an admin fee to process extension requests. 			Date:

Learner Signature	Date
-------------------	------

Please take note of the following discussion points:		I have read and understand the information provided:		
		Yes	No	Comments
<ul style="list-style-type: none"> I will make a copy of the PoE before submission and retain for safekeeping. I accept the consequences of my actions should I not have retained a copy of my PoE and the document is lost or destroyed as a result of circumstances beyond the control of the training provider. 				
13. The Assessor will provide feedback no later than 1 month after the submission date. <ul style="list-style-type: none"> Assessment results are communicated via e-mail. Feedback is confidential. The assessor can be contacted to clarify feedback received. 				
14. If the assessor identifies evidence requirements that I have not met: <ul style="list-style-type: none"> One opportunity for re-assessment is included in the assessment price. Should the assessment result remain unchanged upon re-submission, the action plan will be discussed. Once areas of remediation have been addressed, the learner can re-apply for assessment, bearing the associated assessment costs. 				
15. I understand the appeals policy: <ul style="list-style-type: none"> I have read and signed the Appeals Policy and Procedure in this PoE 				
16. I understand the recordkeeping and reporting of results: <ul style="list-style-type: none"> All learner records are confidential. The company sponsoring your training will have access to Assessment results. Assessment results are communicated to the ETQA who will upload learner results to the National Learner Record Database. 				
Declaration of Understanding statement:				Yes / No
1. I understand the importance of the meeting / workshop				
2. I declare that the above mentioned points of the pre-assessment document were explained by the Assessor/Trainer				
3. I declare that I have received copies of the qualification, assessment plan, assessment schedule and copies of the relevant policies and procedures pertaining to my assessment				
4. I have read the above and understood the contents thereof				
5. I was given the opportunity to clarify any issues relating to the assessment process and my assessment plan				
6. I have requested this assessment in accordance with my own free will and without duress				
Learner Signature		Date		
Facilitator Signature		Date		
Assessor Signature		Date		
Moderator Signature		Date		

Learner Signature	Date
-------------------	------

Assessment Plan

Use the assessment plan to write down the dates on which you plan to meet specific targets. This document **MUST** be completed by the learner in the presence of the Assessor / Facilitator conducting the Pre-Assessment Process:

Programme	LP 4: Financial and Mathematical Literacy		
Unit Standards	SAQA ID 9016: Represent, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts; NQF Level 4, 4 Credits SAQA ID 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues; NQF Level 4, 6 Credits SAQA ID 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems; NQF Level 4, 6 Credits		
Learner Name			
Learner ID Number			
Facilitator Name			
Assessor Name		Assessor ID	
Action	Planned Date	Actual Date	Comments
1. Read and Sign Assessment Preparation Sheet			
2. Complete the formative assessments – class activities in the Learner Workbook			
3. Complete the Reflection in the Learner Workbook			
4. Place the entire Learner Workbook in the PoE			
5. Complete the summative assessment activities in the Learner Portfolio of Evidence Guide:			
a. Knowledge Questionnaire			
b. Practical Activities			
c. Witness Testimony			
d. Logbook			
6. Complete the Assessment Activities Checklist in the Learner Portfolio of Evidence Guide			
7. Submit the PoE			
I, the learner, hereby agree to the above plan and to commit to preparing for the assessment and submitting the specified documents (in my Portfolio of Evidence) on the dates specified.			
Learner Signature		Date	
Facilitator Signature		Date	
Assessor Signature		Date	
Moderator Signature		Date	

Learner Signature	Date
-------------------	------

Declaration of Authenticity

I _____ (full name), ID number _____

declare that the evidence (the work and natural occurring) presented in this portfolio was completed by me and is my own, against the Unit Standards in this Programme:

Programme	LP 4: Financial and Mathematical Literacy
Unit Standard	SAQA ID 9016: Represent, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts; NQF Level 4, 4 Credits SAQA ID 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues; NQF Level 4, 6 Credits SAQA ID 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems; NQF Level 4, 6 Credits

with the exception of:

(detail any work that was not completed by yourself, i.e. group work, etc.)

Where assistance or advice was received, or where I used resource material from a Learner Guide, workbook, policy wording, internet or any other printed sources, this is acknowledged and referenced below: *(please list references here)*:

I further declare that I understand that plagiarism is a punishable offence as it constitutes the theft of another's intellectual property rights.

In signing this, I declare that all the evidence presented in this Portfolio of Evidence is true, valid and my own work:

Learner signature			
Date			
Witness name			
Witness contact details			
Witness signature			
Assessor signature		Moderator signature	

Learner Signature	Date

34

Appeals Procedure

Familiarise yourself with the appeals procedure and sign the document as requested. You will only use the Appeals Form if you would like to appeal against the assessment decision.

The Training Provider acknowledges a Learner's right to appeal against or dispute any assessment decision.

You can appeal under the following circumstances:

- I do not agree with my assessment decision – I feel I have provided sufficient evidence
- I was not briefed properly of the nature and requirements of assessment
- I was unfairly discriminated against
- My special needs for this assessment were not accommodated

If you would like to appeal, please follow the procedure below:

Stage 1:

- Approach the workshop organiser to state your case for re-assessment within 14 working days of being informed of the assessment decision. Complete and submit the appeals form within the 14 days.
- The Training Provider will respond to all appeals and disputes received within 14 working days.
- The workshop organiser will consider the appeal and forward to the assessor if required.
- The assessor will respond with either:
 - A clear explanation stating why the assessment decision is upheld combined with a re-evaluation of the evidence.
 - An amendment of the Learner's Assessment Record, should this be appropriate.

Stage 2:

- Should the decision made by the assessor be unsatisfactory, the appeal will be forwarded to the moderator for mediation and possible re-assessment.

Stage 3:

- The Training Provider management would be approached as the next step, should the decision not be accepted. A panel will be selected to administer the appeal.
- The Learner is invited to attend the proceedings held by the panel.

Stage 4:

- Once all internal appeals and dispute systems have been exhausted, appeals and disputes can be referred to the relevant ETQA for investigation.

Declaration: I hereby confirm that the above procedures have been explained to me and I accept them.

Learner Name: _____ **Signature:** _____ **Date:** _____.

Learner Signature	Date
-------------------	------

Appeals Form

CONDITION/S UNDER WHICH I AM SELECTING TO MAKE THIS APPEAL (select one)

- I do not agree with my assessment decision – I feel I have provided sufficient evidence
- I was not briefed properly of the nature and requirements of assessment
- I was unfairly discriminated against
- My special needs for this assessment were not accommodated

I _____ hereby appeal against the assessment decision:
(name & surname)

Training Provider			
Skills Programme			
Unit Standard(s)			
Assessor		Assessment Date	
Reason for appeal			

Learner Signature _____ Date of Appeal _____

Stage 1: Assessor Response

Decision Amended		Decision Upheld	
Assessor's rationale for decision			
Assessor Signature		Date of Response	

The above decision have been explained to me and I accept the decision YES ☐ NO ☐

Learner Signature _____ Date _____

Stage 2: Moderator Response

Decision Amended		Decision Upheld	
Moderator's rationale for decision			
Moderator Name		Date of Response	
Moderator Signature			

The above decision have been explained to me and I accept the decision YES ☐ NO ☐

Learner Signature _____ Date _____

Stage 3: Management Response

Decision Amended		Decision Upheld	
Rationale for decision			
Panel		Date of Response	
Name		Signature	
Name		Signature	
Name		Signature	

The above decision have been explained to me and I accept the decision YES ☐ NO ☐

Learner Signature _____ Date _____

Stage 4: ETQA

The appeal has been referred for investigation

YES ☐ NO ☐

Learner Signature	Date
-------------------	------

Formative Assessment

“Formative Assessment refers to assessment that takes place during the process of learning and teaching”
(SAQA: Criteria and Guidelines for Assessment Policy Document, pg 26)

Please place the entire contents of your Learner Workbook here, so that it can be assessed as your formative assessment:

- Learner Workbook with Class Activities completed

During and after the initial training the learner will be required to complete a number of class activities. These activities will be both individual and group activities (class activities - formative). The activities are numbered and are to be included in the learner's portfolio of evidence. These activities will measure the progress of the learner through the programme. For authenticity reasons these activities must be handwritten.

Learner Signature	Date
-------------------	------

Learner Workbook

Please **insert your entire Learner Workbook**, with all the Class Activities here.

- Ensure that all the Class Activities are completed, including the Reflection activity.

Learner Signature	Date
-------------------	------

Summative Assessment

“Summative Assessment is assessment for making a judgement about achievement. This is carried out when a learner is ready to be assessed at the end of a programme of learning”

(SAQA: Criteria and Guidelines for Assessment Policy Document, pg 26)

Please complete the following summative assessment activities and submit as part of your Portfolio of Evidence:

- Knowledge Questions
- Practical Activities
- Witness Testimony
- Logbook

The learner needs to individually complete the summative assessment activities. The summative assessment is conducted by means of a knowledge questionnaire and various integrated assessment activities. The learner needs to follow the summative assessment activity instructions to create the evidence required for the portfolio of evidence.

Note: The Critical Cross Field Outcomes are referenced in the following manner:

CCFO1- Identify and solve problems in which responses demonstrate that responsible decisions using critical and creative thinking have been made

CCFO2- Work effectively with others as a member of a team, group, organisation, community

CCFO3- Organise and manage oneself and one's activities responsibly and effectively

CCFO4- Collect, analyse, organise and critically evaluate information

CCFO5- Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation

CCFO6- Use science and technology effectively and critically, showing responsibility towards the environment and health of others

CCFO7- Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation

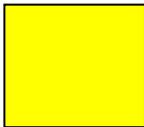
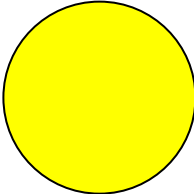
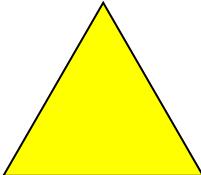
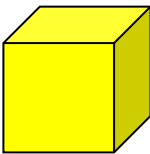
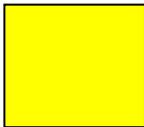
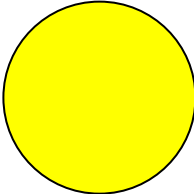
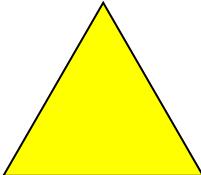
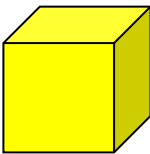
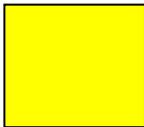
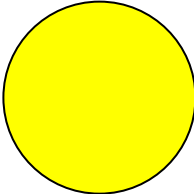
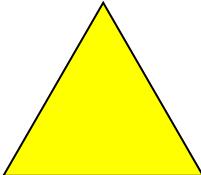
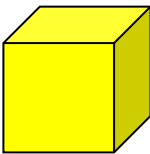
CCFO8- Be culturally sensitive across a range of social contexts so that all actions and decisions made are acceptable to all stakeholders with broad cultural backgrounds

Learner Signature	Date
-------------------	------

Knowledge Questions

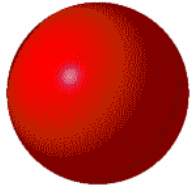
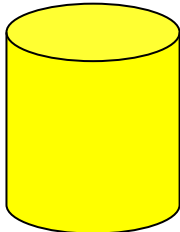
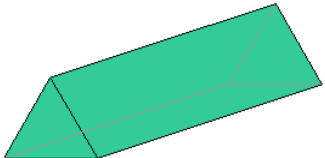

Please answer the following knowledge questions related to the unit standard embedded knowledge and assessment criteria and place it in your portfolio of evidence. Remember to number the answers according to the question numbers, should you need to attach a document.

You have to complete this Knowledge Questionnaire **individually** based on the theory that you covered in your Learner Guide and the formative assessments you completed in your Learner Workbook.

	Knowledge Questions Individually complete the following:	Unit Standard Reference															
1. Describe the following geometric figures in words and by means of a sketch:		9016.EEK 1															
<table border="1"> <thead> <tr> <th>Figure</th> <th>Description</th> <th>Sketch</th> </tr> </thead> <tbody> <tr> <td>Square</td> <td></td> <td></td> </tr> <tr> <td>Circle</td> <td></td> <td></td> </tr> <tr> <td>Triangle</td> <td></td> <td></td> </tr> <tr> <td>Cube</td> <td></td> <td></td> </tr> </tbody> </table>	Figure	Description	Sketch	Square			Circle			Triangle			Cube				
Figure	Description	Sketch															
Square																	
Circle																	
Triangle																	
Cube																	

Learner Signature

Date

Sphere		
Cylinder		
Prism		
Cone		

(24)

2. Define surface area

9016 EEK 2

(2)

Learner Signature	Date
-------------------	------

3. Define volume	9016 EEK 2
(2)	
4. Describe how you would use mathematical argument and evaluation based on logical deduction in your everyday work / home life	9016 EEK 3
(2)	
5. Spatial interrelationships – describe what spatial sense is	9016 EEK 4
(2)	
6. Describe what budgeting is and why a business and a household should budget regularly?	7468 EEK1
(2)	

Learner Signature	Date
-------------------	------

7. Define the following financial terms and provide an example of each to substantiate your answer

7468 EEK2

Income	
Expenditure	
Fixed costs	
Variable costs	
Depreciation	
Stokvel	

(12)

Learner Signature

Date

43

8. Define the following terms associated with planning and controlling financial instruments		7468.1.1
Financial instruments		
Currency		
Insurance		
Assurance		
Stocks		
Unit trusts		
Stock Exchange dealings		
Options		

Learner Signature	Date
-------------------	------

Futures	
Risk	
Return	
(11)	
9. Define the following mathematical terms:	7468 EEK3
Estimate	
Approximate	
(2)	
10. Define the following terms related to interest	7468.2.1 7468 EEK4
Interest	

Learner Signature	Date
-------------------	------

Interest rate	
Simple interest	
Compound interest	
Compound increase	
Compound decrease	
Interest expenses	
Mortgage loans	
Hire Purchase (HP)	
Present Value	

Annuity	
Sinking funds	
(12)	
11. Define the following terms related to aspects of costs and revenue	
7468.3.1	
marginal costs	
marginal revenue	
optimisation of profit	
(3)	
12. Define the following terms related to aspects of the national and global economy	
7468.4.1	
Inflation	

Learner Signature	Date
-------------------	------

Exchange rate	
Foreign exchange	
Imports	
Exports	
Currency	
Inflation	
Measures of Inflation	
Monetary policy of a country	

Learner Signature

Date

Inflation targeting		
Consumer Price Index		
(11)		
13. Identify 3 situations or issues that can be dealt with through statistical methods correctly	9015.1.1	
(3)		
14. What is a survey? When would it be an appropriate method for data collection?	9015.1.2	
(2)		
15. Why is it important to get a representative sample?	9015.1.3	
(2)		
16. Explain what the consequences can be if data is contaminated?	9015.1.4	
(2)		

Learner Signature	Date
-------------------	------

17. List 3 methods of gathering data	9015.1.5
(3)	
18. How can you ensure that data is collected correctly?	9015.1.6 9015 EEK1
(3)	
19. In which situations in your workplace would you want to determine the probability of an event occurring? Mention 2.	9015 EEK4
(2)	
20. List two situations in your workplace where you would need to calculate the average (mean).	9015 EEK2
(2)	
21. Why do we use tables and charts to represent statistical data?	9015 EEK3
(3)	


Learner Signature	Date
-------------------	------

22. What is the value of collecting and analysing data and making predictions and assumptions based on statistical data for a manager in a business?		9015.3.1-5	
			(3)
Total			/ 110
Assessor signature		Moderator signature	

Learner Signature	Date
-------------------	------

Practical Activities

Individually complete the following activities to show your ability to integrate and apply your knowledge and skills in the workplace.

	<p>Practical Activity 1: Maths Literacy</p> <p>Individually complete the following:</p>	<p>9016 7468 9015 Related EEKs CCFO1-8 ELO1-6</p>
<p>You need to show that you can:</p> <ul style="list-style-type: none"> • Represent, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts • Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues • Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems <p>Complete the following in your workplace:</p> <p>1. Measure, estimate, and calculate physical quantities in practical situations relevant to the adult with increasing responsibilities in life or the workplace.</p> <p>Complete the following tasks and provide evidence to show that you have done the following:</p> <ol style="list-style-type: none"> a. You need to demonstrate to your supervisor / qualified colleague that you can measure, estimate and calculate physical quantities. Make sure that you demonstrate the following: <ul style="list-style-type: none"> ▪ Basic instruments to include those readily available such as rulers, measuring tapes, measuring cylinders or jugs, thermometers, spring or kitchen balances, watches and clocks. In situations which necessitate it such as in the workplace, the use of more accurate instruments such as vernier callipers, micrometer screws, stop watches and chemical balances. ▪ Quantities to estimate or measure to include length/distance, area, mass, time, speed acceleration and temperature. ▪ Distinctions between mass and weight, speed and acceleration. ▪ The quantities should range from the low or small to the high or large. ▪ Mass, volume temperature, distance, and speed values are used in practical situations relevant to the young adult or the workplace. ▪ Calculate heights and distances using Pythagoras' theorem. ▪ Calculate surface areas and volumes of right prisms (i.e., end faces are polygons and the remaining faces are rectangles) cylinders, cones and spheres from measurements in practical situations relevant to the adult or in the workplace b. Submit evidence of all of the above, e.g. photographs, documents showing calculations, etc. to substantiate your demonstration c. Request your supervisor / qualified colleague to sign off the following observation sheet and provide comments (<i>very important</i>) about your knowledge and skills demonstrated 		

Learner Signature

Date

Learner Name		Date	
Measure, estimate, and calculate physical quantities in practical situations relevant to the adult with increasing responsibilities in life or the workplace Did the learner:	Yes/No	Comments	
1. Read scales on the measuring instruments correctly?			
2. Estimate quantities to a tolerance justified in the context of the need?			
3. Choose the appropriate instrument to measure a particular quantity?			
4. Measure quantities correctly to within the least step of the instrument?			
5. Select and use appropriate formulae?			
6. Carry out calculations correctly and take the least steps of instruments used into account when reporting final values?			
7. Use symbols and units in accordance with SI conventions and as appropriate to the situation?			
Person Signature			
Person Name			
Person Designation			
Person Contact Details			

2. **Explore, analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three-dimensional geometrical situations.** Complete the following tasks and provide evidence to show that you have done the following:
- You need to demonstrate to your supervisor / qualified colleague that you can explore, analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems. Make

Learner Signature	Date
-------------------	------

sure that you demonstrate the following:

- Applications taken from different contexts such as packaging, arts, building construction, dressmaking. The operation of simple linkages and mechanisms such as car jacks.
 - Top, front and side views of objects are represented.
 - Use rough sketches to interpret, represent and describe situations.
 - The use of available technology (e.g., isometric paper, drawing instruments, software) to represent objects.
 - Use and interpret scale drawings of plans (e.g., plans of houses or factories; technical diagrams of simple mechanical household or work related devices).
 - Road maps relevant to the country.
 - World maps.
 - International time zones.
 - The use of the Cartesian co-ordinate system in determining location and describing relationships in at least two dimensions.
- b. Submit evidence of all of the above, e.g. photographs, documents showing calculations, etc. to substantiate your demonstration
- c. Request your supervisor / qualified colleague to sign off the following observation sheet and provide comments (*very important*) about your knowledge and skills demonstrated

Learner Name		Date	
Explore, analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three-dimensional geometrical situations	Yes/No	Comments	
Did the learner:			
1. Base descriptions on a systematic analysis of the shapes and reflect the properties of the shapes accurately, clearly and completely?			
2. Ensure that descriptions include quantitative information appropriate to the situation and need?			
3. Represent three-dimensional by top, front and side views?			
4. Assimilate different views correctly to describe 3-dimensional objects?			
5. Use available and appropriate technology in producing and analysing representations?			
6. Analyse relations of distance and positions between objects from different views?			

Learner Signature

Date

7. Base conjectures as appropriate to the situation, on well-planned investigations of geometrical properties?		
8. Ensure that the representations of the problems are consistent with and appropriate to the problem context - the problems are represented comprehensively and in mathematical terms?		
9. Achieve results through efficient and correct analysis and manipulation of representations?		
10. Present problem-solving methods clearly, logically and in mathematical terms?		
11. Ensure that reflections on the chosen problem solving strategy reveal strengths and weaknesses of the strategy?		
12. Identify alternative strategies to obtain the solution and compare it in terms of appropriateness and effectiveness?		
Person Signature		
Person Name		
Person Designation		
Person Contact Details		

3. **Use mathematics to plan and control financial instruments including insurance and assurance, unit trusts, stock exchange dealings, options, futures and bonds.** Complete the following tasks and provide evidence to show that you have done the following:

- Do research and provide examples such as pamphlets or internet website downloads of example products that you could have in your personal capacity for insurance and assurance, unit trusts, stock exchange dealings, options, futures and bonds
- Select a life insurance policy option and summarise the costs and benefits of the specific policy

4. **Use simple and compound interest to make sense of and define a variety of situations including mortgage loans, hire purchase, present values, annuities and sinking funds.** Complete the following tasks and provide evidence to show that you have done the following:

- Do research and provide examples such as pamphlets or internet website downloads of example products that you could have in your personal capacity: mortgage loans, hire purchase, present values, annuities and

Learner Signature	Date
-------------------	------

sinking funds

- b. Select a mortgage loan or an HP contract and summarise the costs and benefits of the specific interest situation

5. **Investigate various aspects of costs and revenue including marginal costs, marginal revenue and optimisation of profit.** Complete the following tasks and provide evidence to show that you have done the following:

- a. Do research and show calculations of costs and revenue (including marginal costs, marginal revenue and optimisation of profit) for your small business. Provide supporting documentation as evidence to support your calculations

6. **Use mathematics to debate aspects of the national and global economy, including tax, productivity and the equitable distribution of resources.** Complete the following tasks and provide evidence to show that you have done the following:

- a. Do research and show calculations of the tax that you would pay as an individual.
- b. Do you think that it is “right” that you should be paying tax? Provide reasons to substantiate your answer
- c. Review the national budget of South Africa. Select a specific item of expenditure, such as Education and give your opinion on the amount of money spent on this item against the other items in the national budget. Provide reasons for your point of view.

7. **Critique and use techniques for collecting, organising and representing data.** Complete the following tasks and provide (workplace) evidence to show that you have done the following:

A. Select a problem in the workplace to investigate using statistical method

- **State** the problem
- **Analyse** the problem
- **State** possible solutions
- **Describe** the information that needs to be collected and / or verified

B. Collect data

- Describe how and where you have collected the data:
- Include **one each** of the following in your Portfolio of Evidence:

Interviews

- Include example of standard questions asked.
- How many- size of the sample?
- Reasons for choosing particular people- with whom, positions, experts on?
- How did you avoid bias in yourself and the interviewees?

Questionnaires / forms:

- Include an example of the questionnaire you used
- How many were handed out?

Learner Signature

Date

- How many were returned?
- What was the general attitude?
- How did you ensure that respondents gave forms back?

Observation

- How frequently did you observe the event/situation/person? Was it frequent enough to deliver results?
- Discuss variables taken into account, such as time of day, cost, availability, etc.?
- Size of sample in relation to population?

C. Organise data

Organise the selected data into any **TWO of the following**:

- Table
- Pie chart
- Bar chart
- Line chart
- Scatter diagram

D. Interpret and present data

Prepare a presentation in which you will communicate the outcomes of your statistical research and analysis, as well as suggesting a solution based on the evidence

8. **Use theoretical and experimental probability to develop models.** Complete the following tasks and provide (workplace) evidence to show that you have done the following:

a. Critique the process and findings

- Analyse your selection of **samples** in terms of size and representativeness: Were they large enough to accurately estimate population statistics?
- Identify any **variables** that could have had an impact on the interpretation of the data, e.g. random phenomena, seasonality, too few data points in a time series, etc.
- Identify any shortcomings in the **way** you collected data and your **analysis and interpretation** of the information

Remember: Provide workplace evidence to support your answers and show your ability to do what is required of you in this activity.

Place your evidence after this page; clearly marked for easy reference.

Learner Signature	Date
-------------------	------

Practical Activity Checklist

Please tick that you have submitted the following evidence as per the instructions above:

Learner Name		Date	
---------------------	--	-------------	--

Practical Activity 1	Submitted Yes/No	Name of my document / Comments
Measure, estimate, and calculate physical quantities in practical situations relevant to the adult with increasing responsibilities in life or the workplace		
a. You need to demonstrate to your supervisor / qualified colleague that you can measure, estimate and calculate physical quantities		9016.1
b. Submit evidence of all of the above, e.g. photographs, documents showing calculations, etc. to substantiate your demonstration		9016.1
c. Request your supervisor / qualified colleague to sign off the observation sheet and provide comments (very important) about your knowledge and skills demonstrated a. Signed off observation sheet		9016.1
Explore, analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three-dimensional geometrical situations		
a. You need to demonstrate to your supervisor / qualified colleague that you can explore, analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems		9016.2
b. Submit evidence of all of the above, e.g. photographs, documents showing calculations, etc. to substantiate your demonstration		9016.2
c. Request your supervisor / qualified colleague to sign off the observation sheet and provide comments (very important) about your knowledge and skills demonstrated a. Signed off observation sheet		9016.2
Use mathematics to plan and control financial instruments including insurance and assurance, unit trusts, stock exchange dealings, options, futures and bonds		
a. Do research and provide examples such as pamphlets or internet website downloads of example products that you could have in your personal capacity for insurance and assurance, unit trusts, stock exchange dealings, options, futures and bonds		7468.1
b. Select a life insurance policy option and summarise the costs and benefits of the specific policy		7468.1
Use simple and compound interest to make sense of and define a variety of situations including mortgage loans, hire purchase, present values, annuities and sinking funds		

Learner Signature

Date

Practical Activity 1	Submitted Yes/No	Name of my document / Comments
a. Do research and provide examples such as pamphlets or internet website downloads of example products that you could have in your personal capacity: mortgage loans, hire purchase, present values, annuities and sinking funds		7468.2
b. Select a mortgage loan or an HP contract and summarise the costs and benefits of the specific interest situation		7468.2
Investigate various aspects of costs and revenue including marginal costs, marginal revenue and optimisation of profit		
a. Do research and show calculations of costs and revenue (including marginal costs, marginal revenue and optimisation of profit) for your small business. Provide supporting documentation as evidence to support your calculations		7468.3
Use mathematics to debate aspects of the national and global economy, including tax, productivity and the equitable distribution of resources		
a. Do research and show calculations of the tax that you would pay as an individual.		7468.4
b. Do you think that it is "right" that you should be paying tax? Provide reasons to substantiate your answer		7468.4
c. Review the national budget of South Africa. Select a specific item of expenditure, such as Education and give your opinion on the amount of money spent on this item against the other items in the national budget. Provide reasons for your point of view		7468.4
Critique and use techniques for collecting, organising and representing data		
a. Select a problem in the workplace to investigate using statistical method <ul style="list-style-type: none"> State the problem Analyse the problem State possible solutions Describe the information that needs to be collected and / or verified 		9015.1
b. Collect data <ul style="list-style-type: none"> Describe how and where you have collected the data: Include one each of the following in your Portfolio of Evidence: Interviews; Questionnaires / forms; Observation 		9015.1
c. Organise the selected data into any TWO of the following: <ul style="list-style-type: none"> Table Pie chart Bar chart Line chart Scatter diagram 		9015.1


Learner Signature

Date

Practical Activity 1	Submitted Yes/No	Name of my document / Comments
d. Prepare a presentation in which you will communicate the outcomes of your statistical research and analysis, as well as suggesting a solution based on the evidence		9015.1
Use theoretical and experimental probability to develop models		
a. Analyse your selection of samples in terms of size and representativeness: Were they large enough to accurately estimate population statistics?		9015.2
b. Identify any variables that could have had an impact on the interpretation of the data, e.g. random phenomena, seasonality, too few data points in a time series, etc.		9015.3
c. Identify any shortcomings in the way you collected data and your analysis and interpretation of the information		9015. 3
Learner Signature		
Assessor Signature		Date
Moderator Signature		Date

Learner Signature	Date
-------------------	------

Witness Testimony

	<p>In the workplace, you need to show your ability to integrate what you have learnt. This can be measured with the Specific Outcomes and the Critical Cross Field Outcomes of the Unit Standard.</p>
---	---

Request your supervisor (or workplace mentor) to complete the following form to show that you are able to integrate your learning into everyday workplace application. It is necessary that the supervisor also provides a short comment on the form:


Learner Name		Date	
Did the Learner:		Yes	No
1. Measure, estimate, and calculate physical quantities in practical situations relevant to the adult with increasing responsibilities in life or the workplace?			
2. Explore analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three-dimensional geometrical situations?			
3. Use mathematics to plan and control financial instruments including insurance and assurance, unit trusts, stock exchange dealings, options, futures and bonds?			
4. Use simple and compound interest to make sense of and define a variety of situations including mortgage loans, hire purchase, present values, annuities and sinking funds?			
5. Investigate various aspects of costs and revenue including marginal costs, marginal revenue and optimisation of profit?			
6. Use mathematics to debate aspects of the national and global economy, including tax, productivity and the equitable distribution of resources?			
7. Critique and use techniques for collecting, organising and representing data?			
8. Use theoretical and experimental probability to develop models, make predictions and study problems?			
9. Critically interrogate and use probability and statistical models in problem solving and decision making in real-world situations?			
10. Identify and solve problems in which responses demonstrate that responsible decisions using critical and creative thinking have been made?			
11. Work effectively with others as a member of a team, group, organisation, community?			
12. Organise and manage oneself and one's activities responsibly and effectively?			
13. Collect, analyse, organise and critically evaluate information?			
14. Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation?			
15. Use science and technology effectively and critically, showing responsibility towards the environment and health of others?			
16. Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation?			
17. Be culturally sensitive across a range of social contexts so that all actions and decisions made are acceptable to all stakeholders with broad cultural backgrounds?			

Learner Signature	Date
-------------------	------

Did the Learner:		Yes	No
Comments about how the learner applied the knowledge and skills in this programme: 			
Supervisor Name:			
Supervisor Signature:			
Supervisor Designation:			
Supervisor Contact Details:			
Learner Signature:			
Assessor Signature		Date	
Moderator Signature		Date	

Learner Signature	Date
-------------------	------

Logbook

	<p>Complete this individually in your workplace. This logbook has been included to record all the time spent on learning and preparation for the assessment and other activities related to this programme:</p> <ul style="list-style-type: none"> • Time spent in class (training) • Time spent completing a task / activity should be signed off by a supervisor, mentor or witness where possible. • Time spent applying the new knowledge and skills • The logbook should show that the learner has spent at least 160 hours in acquiring the required knowledge and skills of this programme, including tasks related to the following: <ul style="list-style-type: none"> ○ Measure, estimate, and calculate physical quantities in practical situations relevant to the adult with increasing responsibilities in life or the workplace ○ Explore analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three dimensional geometrical situations ○ Use mathematics to plan and control financial instruments including insurance and assurance, unit trusts, stock exchange dealings, options, futures and bonds ○ Use simple and compound interest to make sense of and define a variety of situations including mortgage loans, hire purchase, present values, annuities and sinking funds ○ Investigate various aspects of costs and revenue including marginal costs, marginal revenue and optimisation of profit ○ Use mathematics to debate aspects of the national and global economy, including tax, productivity and the equitable distribution of resources ○ Critique and use techniques for collecting, organising and representing data ○ Use theoretical and experimental probability to develop models, make predictions and study problems ○ Critically interrogate and use probability and statistical models in problem solving and decision making in real-world situations
---	---

Learner Name	
Skills Programme	LP 4: Financial and Mathematical Literacy
Unit Standards	SAQA ID 9016: Represent, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts; NQF Level 4, 4 Credits SAQA ID 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues; NQF Level 4, 6 Credits SAQA ID 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems; NQF Level 4, 6 Credits

Activity	Start Date	Number of Hours	Running Total No. of Hours	Sign Off by		
				Supervisor / Manager / Mentor / Witness		
				Name & Surname	Relationship to Learner	Signature
Demonstrate to a colleague how to read scales on the measuring instruments correctly						
Explain to your supervisor how to estimate quantities to a tolerance justified in the context of the need while						

Learner Signature	Date
-------------------	------

Activity	Start Date	Number of Hours	Running Total No. of Hours	Sign Off by		
				Supervisor / Manager / Mentor / Witness		
				Name & Surname	Relationship to Learner	Signature
reading the above instruments.						
Choose the appropriate instrument to measure a particular quantity						
Demonstrate to a colleague how to measure quantities correctly to within the least step of the instrument						
Select and use appropriate formulae						
Carry out calculations correctly and take the least steps of instruments used into account when reporting final values						
Use symbols and units in accordance with SI conventions and as appropriate to the situation						
Show the properties of the shapes accurately, clearly and completely						
Base written descriptions on a systematic analysis of the shapes						
Include quantitative information appropriate to the situation and need in your descriptions						
Represent 3-dimensional objects by top, front and side views						
Adjust different views correctly to describe 3-dimensional objects						
Produce and analyse representations, using available and appropriate technology						
Do a written analysis on relations of distance and positions between objects from different views						
Base written conjectures as appropriate to the situation, on well-planned investigations of geometrical properties						
Confirm with your supervisor that the problems are						

Learner Signature

Date

Activity	Start Date	Number of Hours	Running Total No. of Hours	Sign Off by		
				Supervisor / Manager / Mentor / Witness		
				Name & Surname	Relationship to Learner	Signature
represented comprehensively and in mathematical terms						
Analyse and manipulate representations correctly to achieve results						
Record problem-solving methods clearly, logically and in mathematical terms						
Present problem-solving methods to your supervisor clearly, logically and in mathematical terms						
Include a list of the strengths and weaknesses in the reflections on the chosen problem solving strategy						
Identify and list alternative strategies to obtain the solution and compare it in terms of appropriateness and effectiveness						
Ask your supervisor if the plans are sufficient to ensure effective control of financial instruments						
Use computational tools efficiently and correctly to obtain written solutions that are verified in terms of the context						
Use and record measures for control that are appropriate to the need and are in line with control plans						
Provide a written description of the differences between simple and compound interest in terms of their common applications and effects						
Use and list methods of calculation that are appropriate to the problem types						
Use computational tools efficiently and correctly to obtain written solutions that are verified in terms of the						

Learner Signature

Date

Activity	Start Date	Number of Hours	Running Total No. of Hours	Sign Off by		
				Supervisor / Manager / Mentor / Witness		
				Name & Surname	Relationship to Learner	Signature
context						
Give a written definition of changes over a period of time by using the solutions to the calculations effectively						
Calculate and record values correctly						
Determine and describe, in writing, the relationships between the various aspects of cost and revenue through the effective use of mathematical tools and systems						
Use the correct terminology in the correct context						
Describe, in writing, reasonable methods for the control of costs and optimisation of profits in relation to given data						
Calculate and record values correctly						
Determine, compare and describe, in writing, aspects of the national and global economy through the effective use of mathematical tools and systems						
List debating points that are based on well-reasoned arguments and are supported by mathematical information						
Identify and list situations or issues that can be dealt with through statistical methods correctly						
Use and describe, in writing, appropriate methods for collecting, recording and organising data so as to maximise efficiency and ensure the resolution of a problem or issue						
Select and list data sources and databases in a manner that ensures the representativeness of the sample and the validity of resolutions						
Identify and list activities						

Learner Signature

Date

Activity	Start Date	Number of Hours	Running Total No. of Hours	Sign Off by		
				Supervisor / Manager / Mentor / Witness		
				Name & Surname	Relationship to Learner	Signature
that could result in contamination of data and provide written explanations of the effects of contaminated data						
Gather and record data using methods appropriate to the data type and purpose for gathering the data						
Demonstrate to your supervisor the correct use of data collection methods						
Confirm with your supervisor that the calculations and the use of statistics are correct						
Produce graphical representations and numerical summaries that are consistent with the data, are clear and appropriate to the situation and target audience						
Provide written resolutions for the situation or issue that are supported by the data and are validated in terms of the context						
Choose and/or design experiments and simulations appropriately in terms of the situation to be modelled						
Base predictions on validated experimental or theoretical probabilities						
Base written predictions on validated experimental or theoretical probabilities						
Write interpretations on the results of experiments and simulations correctly in terms of the real context						
Document the outcomes of experiments and simulations clearly						
Interpret statistics generated from the data meaningfully, ensuring your written interpretations are						

Learner Signature

Date

[illegible]

68

Learner Signature

Date _____

Activity	Start Date	Number of Hours	Running Total No. of Hours	Sign Off by		
				Supervisor / Manager / Mentor / Witness		
				Name & Surname	Relationship to Learner	Signature
Assessor signature		Date		Moderator signature		Date


Learner Signature	Date
-------------------	------

Assessment Activities Checklist


The learner needs to complete all the required activities that are guided by the Specific Outcomes and Assessment criteria of the Unit Standard(s) in this skills programme:

Programme	LP 4: Financial and Mathematical Literacy
Unit Standards	SAQA ID 9016: Represent, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts; NQF Level 4, 4 Credits SAQA ID 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues; NQF Level 4, 6 Credits SAQA ID 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems; NQF Level 4, 6 Credits




Once you have completed all the assessment activities, request your supervisor to check that you have completed all the required activities and that they have all been placed in your Portfolio of Evidence, in the following order:

Did the learner provide the required evidence:	Reference:	Comments / Feedback	Yes	No
 Formative – Class Activities				
Class Activity 1	9016.1			
Class Activity 2	9016.2 9016 EEK1 9016 EEK2 9016 EEK3 9016 EEK4			
Class Activity 3	7468.1 7468 EEK1 7468 EEK3			
Class Activity 4	7468.2 7468 EEK2			
Class Activity 5	7468.3			
Class Activity 6	7468.4			
Class Activity 7	9015.1 9015 EEK1 9015 EEK2 9015 EEK3 9015 EEK4			
Class Activity 8	9015.2			

Learner Signature	Date
-------------------	------

Did the learner provide the required evidence:	Reference:	Comments / Feedback	Yes	No
Class Activity 9	9015.3			
Reflection	9016 7468 9015			
Facilitator Observation Checklist	9016 7468 9015			
	Summative - Knowledge Questions			
Question 1	9016 EEK1			
Question 2	9016 EEK2			
Question 3	9016 EEK2			
Question 4	9016 EEK3			
Question 5	9016 EEK4			
Question 6	7468 EEK1			
Question 7	7468 EEK2			
Question 8	7468.1.1			
Question 9	7468 EEK3			
Question 10	7468.2.1 7468 EEK4			
Question 11	7468.3.1			
Question 12	7468.4.1			
Question 13	9015.1.1			
Question 14	9015.1.2			
Question 15	9015.1.3			
Question 16	9015.1.4			
Question 17	9015.1.5			
Question 18	9015.1.6 9015 EEK1			
Question 19	9015 EEK4			

Learner Signature	Date
-------------------	------

Did the learner provide the required evidence:	Reference:	Comments / Feedback	Yes	No
Question 20	9015 EEK2			
Question 21	9015 EEK3			
Question 22	9015.3.1-5			
 Summative – Practical Activities				
Practical Activity 1	9016 7468 9015 Related EEKs CCFO1-8 ELO1-6	As per the Practical Activity 1 Checklist:		
 Summative – Witness Testimony				
Witness Testimony 1	9016 7468 9015			
 Summative – Logbook				
Logbook	9016 7468 9015			

Learner Name:	
Learner Signature:	
Date:	
Supervisor Name:	
Supervisor Signature:	
Supervisor Designation:	
Supervisor Contact Details:	
Assessor Signature	
Moderator Signature	

Learner Signature	Date
-------------------	------

Learner Re-assessment Plan

Should it happen that a learner is deemed Not Yet Competent on assessment the learner will be allowed to be re-assessed. The learner can, however, only be allowed three reassessments – as per the training provider's Assessment Policy.

All assessment decisions will be recorded on the Assessment Feedback Document, which all parties sign.

When learners have to undergo re-assessment, the following conditions will apply:

- Specific feedback will be given to the learners in the Assessment Feedback Document so that the learner can concentrate only on those areas in which they were assessed as Not Yet Competent
- Re-assessment will take place in the same situation / context and under the same conditions as the original assessment
- Only the assessment criteria that were not achieved will be re-assessed

Learner Signature	Date
-------------------	------

Re-Assessment Preparation Sheet

This document serves to orientate and prepare you in the re-assessment(s) that you are about to embark in. It is a map that informs you of the steps involved in the assessment process and will allow you to prepare for your assessment(s), helping to set you at ease, and give you the best opportunity for success.

Programme	LP 4: Financial and Mathematical Literacy		
Qualification	SAQA ID 9016: Represent, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts; NQF Level 4, 4 Credits SAQA ID 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues; NQF Level 4, 6 Credits SAQA ID 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems; NQF Level 4, 6 Credits		
Venue of Re-Assessment Meeting		Date	
Learner Full Name			
Learner ID			
Facilitator Full Name			
Assessor Full Name		Assessor Number	
Moderator Full Name		Moderator Number	

Please read the discussion points below. Tick yes, indicating that you have read and understand the information provided. Please contact your facilitator or assessor if you do not understand or need additional information on any of the points below:

Please take note of the following discussion points:	I have read and understand the information provided:		
	Yes	No	Comments
1. The purpose of the re-assessment is to determine and recognise my competence against the unit standards in this qualification, that I have not met at this point in time			
2. You will be provided with a copy of the Assessment Feedback document in which the assessor provides specific feedback about the areas in which you were assessed as Not Yet Competent: <ul style="list-style-type: none"> I understand that there is additional evidence I need to submit for remediation 			
3. I am aware that all evidence has to be: <ul style="list-style-type: none"> Valid (evidence provided will speak to the unit standard) Authentic (all evidence submitted will be my own work, I will indicate where this is not the case. If it found that I am guilty of plagiarism, I will have to apply to be assessed again and pay the bearing associated assessment costs) Reliable (evidence is from a reliable source) Current (evidence cannot be older than 3 years) Sufficient (prove consistent competence – not a “once-off” occurrence) 			
4. The re-submission date of the remediation evidence is communicated to me on the Assessment Feedback document			

Learner Signature	Date
-------------------	------

Please take note of the following discussion points:	I have read and understand the information provided:		
	Yes	No	Comments
<ul style="list-style-type: none"> No late submissions will be accepted. An extension request has to be submitted 5 working days prior to the agreed submission date. We reserve the right to charge an admin fee to process extension requests. I will make a copy of the remediation evidence before submission and retain for safekeeping. I accept the consequences of my actions should I not have retained a copy of my PoE and the document is lost or destroyed as a result of circumstances beyond the control of the training provider. 			
5. The assessor will evaluate the remediation evidence submitted in my PoE against the Unit Standard Specific Outcomes with their associated Assessment Criteria, Essential Embedded Knowledge and CCFOs that is outlined in the Unit Standards related to this Skills Programme in the qualification.			
6. The Assessor will provide feedback no later than 1 month after the submission date. <ul style="list-style-type: none"> Assessment results are communicated to the learner. Feedback is confidential. The assessor can be contacted to clarify feedback received. 			
7. If the assessor identifies evidence requirements that I have not met: <ul style="list-style-type: none"> One further opportunity for re-assessment is provided for (3 assessments in total) Should the assessment result remain unchanged upon re-submission, the action plan will be discussed with me, the learner. 			
8. Were you informed of your rights, appeal process and reassessment policies?			
9. I understand the appeals policy: <ul style="list-style-type: none"> I have read and signed the Appeals Policy and Procedure in this PoE 			
Declaration of Understanding statement:			Yes / No
1. I understand the importance of the meeting / workshop			
2. I declare that the above mentioned points of the re-assessment document were explained by the Assessor/Trainer and that I have read the above and understood the contents thereof			
3. I declare that I will receive feedback on my PoE that has been assessed and that I will be able to clarify what additional evidence is required for remediation in this re-assessment process			
4. I understand that I will request this re-assessment in accordance with my own free will and without duress			
Learner Signature		Date	
Facilitator Signature		Date	
Assessor Signature		Date	
Moderator Signature		Date	

Learner Signature	Date
-------------------	------

Learner's Review of the Assessment Process

You, the learner, will be given the same document as below to complete in the Assessor Assessment Feedback document, once your first assessment has been completed. The document provides you with the opportunity to provide feedback to the training provider about the assessment process that you have gone through:

Programme	LP 4: Financial and Mathematical Literacy									
Unit Standards	SAQA ID 9016: Represent, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts; NQF Level 4, 4 Credits SAQA ID 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues; NQF Level 4, 6 Credits SAQA ID 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems; NQF Level 4, 6 Credits									
Assessor										
Learner										
Date										
Review Dimensions			Agree	Disagree						
1. The assessment related to the registered unit standard										
2. The assessment was practical										
3. The assessment was time efficient and cost effective and did not interfere with my normal responsibilities										
4. The assessment instruments and judgements were fair, clear and understandable										
5. My special needs, if any, were identified and the assessment plan was adjusted (if required)										
6. The feedback that I received was constructive, even when I requested assistance										
7. I was made aware of the opportunity to appeal against the outcome of the assessment										
8. Did you find any parts of the Learner Workbook and Learner Portfolio Guide particularly helpful?										
9. Did you find any parts of the Learner Workbook and Learner Portfolio Guide particularly awkward or difficult to understand?										
Learner's declaration of understanding										
I am aware that the assessor will provide me with feedback about the assessment and of the moderation process and understand that the moderator could declare the assessment decision invalid.										
Learner	Date	Assessor	Date	Moderator	Date					

Thank you for taking the time to complete this evaluation form.

Learner Signature	Date
-------------------	------

Learner Programme Evaluation

The training provider will provide you, the learner, with a programme evaluation form, similar to the one below to gather feedback from you about the entire learning process that you have undergone. Please confirm with the facilitator, which form you will be completing:

Programme:	LP 4: Financial and Mathematical Literacy				
Unit Standards:	SAQA ID 9016: Represent, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts; NQF Level 4, 4 Credits SAQA ID 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues; NQF Level 4, 6 Credits SAQA ID 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems; NQF Level 4, 6 Credits				
Delegate Name:					
Date:		Duration:		Venue:	
Facilitator's Name:					
<p><i>Dear Learner</i> <i>In order to assist us to maintain the relevance and quality of your learning, please complete this reaction sheet and hand it back to your facilitator. Please be honest and make additional comments where possible.</i> <i>Yours in Learning</i></p>					
Quality Indicator	Poor	Below Average	Average	Good	Excellent
	= 1	= 2	= 3	= 4	= 5
Did the Facilitator...					Score
1.	Clearly explain the outcomes of the course				
2.	Present an open and friendly approach towards the learners & made me feel welcome				
3.	Motivate & Encourage learning within the group				
4.	Use activities and training aids during the training making it exciting				
5.	Communicated Effectively and clearly				
Additional Comments:					
Total					25
How was the course Delivered?					
1.	Did you feel the knowledgeable on all of the training outcomes				
2.	There was enough time to practice what I had learnt through activities and exercises				
3.	I received enough useful "support" material (Handouts, checklists, templates, job aids etc.) to assist me back in the workplace				
4.	The trainer was well prepared				
5.	Cover the contents of the learning material adequately and in a logical sequence				
Additional Comments:					
Total					25
Tell us about the Venue & other Logistics?					
1.	Communication of training venue, date and time was received in advance				
2.	Was it well prepared by the facilitator prior to the session				
Additional Comments					
Total					10

Thank you for your feedback!

Learner Signature	Date
-------------------	------

Glossary

Assessment	A structured process for gathering evidence and making judgments about an individual's performance in relation to registered, national standards
Assessment Guide	The document sets out what will be assessed, and what evidence needs to be generated
Assessment Plan	Document used to plan the assessment process.
Assessment Process	Incorporates all activities that form part of the assessment.
Coaching	A training method in which an experienced individual guides the learner towards acquiring specific skills.
Competent	Learners are declared competent when they meet the outcomes of the unit standard.
ETQA	The Education Training Quality Assurance Body is responsible for ensuring quality training and development within a specific sector.
Formative Assessment	Refers to the assessment that takes place during the process of learning. The assessment provides an indication of how the learning is progressing. Additional training needs may be identified during the process.
Learnership	A Learnership is a work-based approach to learning and gaining qualifications and includes both structured work experience (practical) and structured learning (theory).
Mentor	A multi-skilled individual who serves as a sponsor, teacher, coach, sounding board and counsellor.
Moderation	A process of review that confirms that processes that have been followed are valid, consistent, fair and adequate.
NQF	The National Qualifications Framework provides a framework for nationally recognised qualifications. Qualifications are assessed according to ten bands.
NYC	Not Yet Competent
OBET	Outcomes Based Education and Training
QMS	Quality Management System
Qualifications	A group of unit standards that have been clustered together to make up a registered qualification. There are 3 types of qualifications on the NQF: certificates (120cr), diplomas (240cr) and degree (360cr).
RPL	A process whereby learners are assessed and given credit for learning that has already taken place within the workplace.
SAQA	South African Qualifications Authority
SDA	Skills Development Act
SDF	Skills Development Facilitator
SETA	Sector Education and Training Authority
SGB	Standards Generating Bodies
Skills Programmes	Occupationally based learning intervention that uses providers to train learners towards the achievement of national unit standards.
SME	Subject Matter Expert
Summative Assessment	Occurs at the end of the learning process. Evidence is gathered and an assessment is made as to whether a learner has met requirements for competence.
Training Providers	Organisations or individuals that provide learning. These include technical colleges, technikons, distance education institutions, universities, private providers or company in-house training divisions.
Unit Standards	A collection of knowledge, skills and attributes in which a candidate must prove competence (in a structured assessment) to gain credit on the NQF.
VACCS	An assessment tool, which asks whether evidence is valid, authentic, current, consistent and sufficient.

Learner Signature	Date