

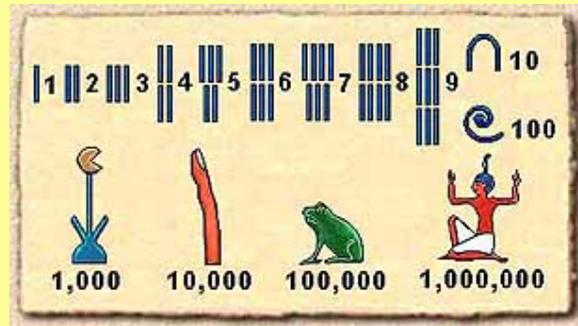
NOF Level: 3

US No: 7456

Facilitator Guide

Primary Agriculture

Use mathematics to investigate and monitor



Facilitator:

Company:

Commodity: Date:

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agriculture

Department:
Agriculture
REPUBLIC OF SOUTH AFRICA



Before you get started...

Dear Facilitator,

This Facilitator Guide (together with the relevant Learner Guide) is aimed at facilitators who will be assisting learners wishing to complete the following unit standard:

Title:	Use mathematics to investigate and monitor the financial aspects of personal, business and national issues		
US No:	7456	NQF Level:	3
		Credits:	5

This guide contains all necessary facilitation instructions to ensure that learners will attain the expected competencies required by the above-mentioned unit standard. This guide is designed to be used during the presentation of a learning session based on this unit standard. The full unit standard is attached at the end of the relevant Learner Guide. Learners are advised to read the unit standard at their time. Please discuss the unit standard with the learners to ensure that they understand what is expected from them to achieve the outcomes of the unit standard.

This unit standard is one of the building blocks in the qualifications listed below. Please mark the qualification you are currently facilitating, because that will be determined by the context of application:

Title	ID Number	NQF Level	Credits	Mark
National Certificate in Animal Production	49048	3	120	ρ
National Certificate in Plant Production	49052	3	120	ρ

Please mark the learning program the learners are enrolled in:

Are you enrolled in a:	Y	N
Learnership?	ρ	ρ
Skills Program?	ρ	ρ
Short Course?	ρ	ρ

Note to Facilitator:

If you are presenting this module as part of a full qualification or learnership, please ensure that you have familiarised yourself with the content of the qualification.

Please explain the above concepts to the learner.

There are three guides, namely the Learner Guide (with activities), Assessor Guide and the Facilitator Guide.

These guides have been developed to address specific aspects of the learning experience. You therefore need to use these guides complementally to one another.

Make this an enjoyable learning experience!

Context of Application ...

Primary Agriculture is a diverse sector and a wide range of commodities is being produced for both national and international market. Each commodity has its own production requirements and practices. You will be facilitating the learning process within a specific context where a specific agricultural commodity is being produced. The learning material has been written in a **generic** manner, as it is aimed to be available on national level and should be relevant to be applied within a variety of commodities. It is therefore inclusive of all agricultural commodities and crop in this field. Therefore, the examples that are being used in the materials may not always be applicable to your specific community, commodity, environment or region.

This presents you, the facilitator, with the challenge to **contextualise** the learning material. It is imperative that you, the Facilitator and Assessor interpret and present activities, case studies and projects related to the material in such a way that learners can easily identify and apply their knowledge within their own context. This will require from you to add examples of crop, which are applicable to the community or farm. Learners must be guided with examples from their own communities, commodities, environment or regions. This should be done by complementing the learning material with:

- Examples relevant to the commodity,
- Including commodity specific requirements,
- Including operating procedures of the farm,
- Including agricultural practice specific requirements,
- Agricultural markets,
- Guiding learners to write these specifics down in the learning guide, etc.

The contextualisation of the learning material is a very important step in preparing for and facilitating the learning experience and enough time and effort should be put into this exercise.

According to the qualifications mentioned on page 2, this module could be contextualised to fit the following groups of commodities:

Plant Production	Animal Production	
<ul style="list-style-type: none"> • Organic production, • Hydroponic production, • Perma-culture production, • Agronomy, • Horticulture, • Natural resources harvesting. 	<ul style="list-style-type: none"> • Small stock production, • Large stock production, • Dairy production, • Pig production, • Poultry production, • Game, • Aqua / mari culture, • Commercial insects • Animal fibres harvesting, • Bee keeping, 	<ul style="list-style-type: none"> • Natural resources harvesting, • Organic production, • Perma-culture production, • Eco/Agri Tourism, • Agro Chemicals, • Horse Breeding, • Etc.

How to use this guide ...

Throughout the guide information is given specifically aimed at you, the facilitator, to **assist** in the actual presentation of the learning material and/or facilitation of the learning process. Although this guide contains all the information required for attaining competency in this unit standard, references to additional resources, both printed and electronic, are provided for additional reference by the facilitator and further study by the learner.

Please note that the purpose of this information is merely to **guide** you, the facilitator, and is provided as a suggestion of possibilities. It remains the responsibility of every facilitator to re-assess the learner/s in each learning situation throughout the learning process in order to stay in touch with their specific learning needs. This should be the determining factor in the choice of the learning approach to follow.

Use the different boxes listed below for identification purposes:



Instructions regarding **activities**, whether group or individual activities will be described in this box.



Facilitators' Tip ...

My Notes ...

You can use this box for your own notes/comments.

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What & How will you be Facilitating?

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The Learning Experience...

On completion of this module, the learners will be able to:

- ◆ People credited with this unit standard are able to:
- ◆ Use mathematics to plan and control personal and/or household budgets and income and expenditure.
- ◆ Use simple and compound interest to make sense of and define a variety of situations including investments, stokvels, inflation, appreciation and depreciation.
- ◆ Investigate various aspects of financial transactions including costs, prices, revenue, cost price, selling price, loss and profit.

Learners will also gain basic knowledge of:

- ◆ Use mathematics to plan and control personal, regional and/or national budgets and income and expend.
- ◆ Use simple and compound interest to make sense of and define a variety of situations.
- ◆ Use mathematics to debate aspects of the national economy.

Learners will also gain basic knowledge of:

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

Learning Assumed to be in Place:

- ◆ The credit value is based on the assumption that people starting to learn towards this unit standard are competent in Mathematics and Communications at NQF level 2



Remember to do a diagnostic assessment of the learner's prior learning and ensure that they are starting at the correct level.

My Notes ...

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Learning Program Time Frames

	Total time allocated (hours)	Theoretical learning time allocated (hours)	Practical learning time allocated (hours)	Activities to be completed
Complete Program (including summative assessment)	20 hours	11 hours	9 hours	4 Activities
Learner Orientation and "Ice Breaker"	30 minutes	30 minutes		
Purpose, Introduction and Learner Directions	30 minutes	30 minutes		
Session 1	10 hours	5 hours	5 hours	1 & 2
Session 2	3 hours	1 hour	2 hours	3
Session 3	2 hours	2 hours	(6 months)	4 (6 months)
\Preparation for Assessment & revision	4 hours	2 hours	2 hours	

Tips for level of learning



Remember the following before you get started:

Typically, a learning programme leading to the award of a qualification or unit standards at level 3 should develop learners who demonstrate an ability to:-

- Operate within clearly defined contexts.
- Work and learn within a managed environment.
- Actively contribute to team effectiveness.
- Take position on available information, discuss the issues and reach a resolution; produce a coherent presentation and report, providing explanations for positions taken.
- Summarize and interpret information relevant to the context from a range of sources.
- Use their knowledge to select appropriate procedures to solve problems within given parameters.
- Apply skills in measuring the environment using key instruments and equipment operational literacy and numeracy skills; use basic procedures and operations to complete complex tasks.
- Understand the organizational and operating environment as a system.
- Understand one or more fields or discipline's key concepts and knowledge, in addition to the fundamental areas of study.

Facilitator's Checklist & Training Aids

Learner support strategies:
<p>Learners are supplied with all resources and aids as required by the programme – including:</p> <ul style="list-style-type: none"> ▪ Objects & devices such as equipment, protective clothing, safety gear, etc. ▪ Learner Guides and Learner Workbook ▪ Visual aids, etc.

Use this checklist below during your preparation to ensure that you have all the equipment, documents and training aids for a successful session.

Preparation:	Yes	No
Qualification Knowledge – I have familiarised myself with the content of the applicable qualification		
Unit Standard Knowledge – I have familiarised myself with the content of all aspects of the applicable unit standard		
Content Knowledge – I have sufficient knowledge of the content to enable me to facilitate with ease		
Application knowledge – I understand the programme matrix & have prepared for programme delivery accordingly		
Contextualisation – I have included information which is specific to the commodity and practices related to the commodity		
Ability to respond to learners background & experience – I have studied the learner demographics, age group, experience & circumstances & prepared for programme delivery accordingly		
Enthusiasm & Commitment – I am passionate about my subject & have prepared my programme delivery to create a motivating environment with real commitment to success		
Enterprise knowledge – I know & understand the values, ethics, vision & mission of the workplace & have prepared my programme delivery, reporting & administrative tasks accordingly.		
Equipment check:		
Learner guides x 1 per learner		
Assessment guides x 1 per learner		
Writing materials & stationary (facilitator & learner)		
White board & pens		
Flip chart paper		
Proxima projector & screen		
Laptop & programme disk		
Sample Hand-outs and examples of laws and other relevant documents		

Safety gear as prescribed by unit standard and applicable legislation		
Documentation checklist:		
Attendance Register		
Course Evaluation		
Learner Course Evaluation		
Portfolios of evidence		

Contextualisation of Content!

Go through this module and indicate what specific **information / activities / examples** should be included in this module?

Contextualisation	
<ul style="list-style-type: none"> Commodity specific? 	
<ul style="list-style-type: none"> Operating procedures of the farm? 	
<ul style="list-style-type: none"> Agricultural practices? 	
<ul style="list-style-type: none"> Agricultural markets? 	

Session



Budgets and other financial concepts

Learner Guide:
Page 7

After completing this session, the learner should be able to:

SO 1: Use mathematics to plan and control personal, regional and/or national budgets and income and expend.

Concept (SO 1)	Time frame	Activities related to the concept
Plans describe projected income and expenditure realistically.	10 hours	Activity 1 & 2
Calculations are carried out using computational tools efficiently and correctly and solutions obtained are verified in terms of the context.		
Budgets are presented in a manner that makes for easy monitoring and control.		
Actual income and expenditure is recorded accurately and in relation to planned income and expenditure. Variances are identified and explained and methods are provided for control.		

Tips for the Facilitator



Activity 1

You have to judge whether the amounts that have been entered are realistic or not, and whether enough categories have been included.

You must give guidance for the calculations and the results.

Activity 2.1(a)

You must give guidance for this exercise, especially when it comes to differentiation of luxuries and necessities.

Activity 2.2

Check that entries are realistic.

Emphasize to students the difference between needs and wants. Luxuries are a want and not a need.

Session

2 Use simple and compound interest

Learner Guide:
Page 25

After completing this session, the learner should be able to:

SO 2: Use simple and compound interest to make sense of and define a variety of situations.

Concept (SO 2)	Time frame	Activities related to the concept
The differences between simple and compound interest are described in terms of their common applications and effects.	3 hours	Activity 3
Methods of calculation are appropriate to the problem types.		
Computational tools are used efficiently and correctly and solutions obtained are verified in terms of the context or problem.		
Solutions to calculations are used effectively to define the changes over a period of time.		



Please allow learners to complete Activity 3 in their Learner Guides

Type of activity	Resources
3. Individual activity.	Learner Guide, stationary.
Instructions to give to the learners	
As per instructions in Learner Guide.	

Session

3 Aspects of national and global economy

Learner Guide:
Page 33

After completing this session, the learner should be able to:
SO 3: Use mathematics to debate aspects of the national economy.

Concept (SO 3)	Time frame	Activities related to the concept
Values are calculated correctly.	6 months	Activity 4
Mathematical tools and systems are used effectively to determine, compare and describe aspects of the national economy.		
Debating points are based on well-reasoned arguments and are supported by mathematical information.		



Please allow learners to complete Activity 4 in their Learner Guides

Type of activity	Resources
4. Individual activity.	Learner Guide, stationary.
Instructions to give to the learners	
As per instructions in Learner Guide.	

My Notes ...

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What will I do differently next time?

Take some time to **reflect** on your own activities as facilitator of this Unit Standard then write down five of the most important lessons you have learnt and include a motivation:

What will I do differently next time?	Motivate how or why (Give examples, reasons, etc.)
1.	
2.	
3.	
4.	
5.	

As facilitator, you have hands on experience in the application of the unit standard and you might experience difficulties with the unit standard that the developers did not anticipate. Also, the unit standard will be revised at the end of the registration period. Your comments below can be an important contribution in the revision process and should be brought to the attention of either the AgriSETA ETQA manager or the SGB chairperson.

Please take some time to reflect on your experience and list a few of the difficulties you had to address.

Difficulties I had with the Unit Standard	Recommended Changes to Address the Difficulty
6.	
7.	
8.	
9.	
10.	