



Republic of Malawi

Syllabus for

Initial Primary Teacher Education

Agriculture

Ministry of Education, Science and Technology

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Prepared and published by

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Foreword

Education is the lifeblood of the nation. It is a prerequisite for individual, community and national development. Education prepares learners to play their roles effectively in efforts to promote and sustain a country's socio-economic development. Parents or guardians desire that their children develop into adults with sound minds and healthy bodies, through the acquisition of appropriate knowledge, skills and desirable attitudes to enable them to live productive and happy lives.

Education should, therefore, help learners to develop high standards of conduct, attitudes, judgment and a sense of responsibility. Student teachers have to be well prepared in order to be able to take this responsibility of teaching children effectively.

The provision of quality education is based on many factors and a good quality of teachers is one of them. Teachers play a central role because they are the key source of knowledge, responsible for facilitating the learning process and act as role models for the learners.

The function of initial teacher education in Malawi is to prepare student teachers in their aspiration of becoming teachers of high quality. This is achieved by helping the student teachers to acquire the right knowledge, skills and competences to enable them to effectively teach children. In view of this, the Initial Teacher Education curriculum has been reviewed to ensure that student teachers who graduate from this programme are well trained and prepared for their profession.

The process and implementation of this review has been guided by the Teacher Education Philosophy which states as follows:

‘To produce a reflective, autonomous, lifelong learning teacher, able to display moral values and embrace learners’ diversity.’

It is therefore hoped that Teacher Training Colleges will find this curriculum effective in helping the student teachers to build a solid foundation in their teaching profession.

Secretary for Education
Ministry of Education, Science and Technology

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Introduction

The purpose of primary teacher education is to produce and continually develop competent and responsive teachers who effectively deliver quality education to all learners under prevailing conditions and demands in primary schools and promote their desire for life-long learning. IPTE endeavors to educate teachers in sufficient numbers, continually develop their professionalism so that they are able to effectively and efficiently deliver quality and relevant education to primary school learners.

National goals for primary teacher education

The national goals of primary teacher education in Malawi are to produce teachers who are:

- academically well-grounded and professionally competent
- flexible and capable of adapting to the changing needs and environment of the Malawian society
- capable of adhering to and maintaining the ethics of the teaching profession
imaginative in adapting, creating and utilising locally available resources suitable for the needs of their learners

Teacher education philosophy

The following has been the guiding principle during the design, development and implementation of the IPTE curriculum.

To produce a reflective, autonomous, lifelong learning teacher, able to display moral values and embrace learners' diversity has been designed.

IPTE programme structure

The duration of the teacher education is two years. The general outlook of the two years is as follows:

Year 1			Year 2		
Term 1	Term 2	Term 3	Term 1	Term 2	Term 3
In college, learning subject content with a special focus on methods for lower classes	In college, learning subject content with special focus on methods for upper classes	Out in teaching practice schools, practising teaching mainly in the lower classes	Out in teaching practise schools, practising teaching mainly in the upper classes	In college, with special emphasis on reflection, inclusion and further practice on teaching methods	In college, with special emphasis on subject content, policies and frameworks

Unique features

The features of the reviewed curriculum are as follows:

- The curriculum design is based on reflective and practice principles.
- Early grade teaching methodologies are distinct.
- The delivery of the subject content follows the modular approach.
- Student teachers will be allowed to practise teaching both in the lower classes (Standards 1 to 4) as well as in upper classes (Standards 5-8).
- Cross cutting issues such as Assessment for Learning, ICT, Inclusive Education and Critical Thinking are integrated.

IPTE subject matrix

The new curriculum has adopted the reflective practitioner model of teacher education which connects practice and theory and integrates content and pedagogy in teaching and learning. In this structure, student-teachers will be in college for two terms of year 1 and be in primary schools for teaching practice in the third term of first year and first term of the second year. Student teachers will be back to colleges in terms 2 and 3 of year 2 to continue learning subject content, reflecting on their experiences of teaching practice and then wind up their studies.

This curriculum is designed in a modular structure and contains eleven subjects. These are Chichewa, English, Mathematics, Education Foundation Studies, Agriculture, Social Studies, Life Skills, Science and Technology, Expressive Arts, Religious Studies and Human Ecology. In this modular design, a set of topics forms a module in a subject. A module consists of 40 hours contact time.

IPTE outcomes based curriculum

This outcomes-based curriculum is focused on student teachers' achievements. These achievements are teaching competencies. The teaching competencies student teachers develop from the IPTE programme will be seen when student teachers are able to transfer the knowledge and skills directly in primary schools.

Subject and core elements

The IPTE curriculum comprises of eleven subjects namely Agriculture, Science and Technology, Mathematics, Expressive Arts, Chichewa, English, Education Foundation Studies, Social studies, Life skills, Religious studies and Human Ecology. Each subject has a rationale from which core elements are derived.

Teacher education core element outcomes

Teacher education core element outcomes are descriptions of the competencies to be acquired by the student teacher for successful teaching.

IPTE assessment procedures

In Outcomes-Based Education (OBE), assessment is a significant part of the teaching and learning process. The main purpose of assessment is to facilitate learning by constant monitoring of the progress of individual student teachers. The process is on-going and it uses clearly defined criteria with a variety of tools, methods and techniques in different situations and contexts. This helps to gather valid and reliable information on the student teachers' achievement of outcomes.

Assessment in initial primary teacher education in Malawi comprises two major components: continuous and summative assessment. Both modes involve assessment tasks that measure the student teachers' achievement of knowledge, skills, values and attitudes. These tasks include oral presentations, practical and reflective tasks, reports, researches, tests and examinations.

In the reviewed curriculum, the weighting of continuous assessment in the final grade will be *60% continuous assessment* and *40% summative assessment*.

The continuous assessment will comprise:

- two grades based on each module
- end of module examinations excluding terms 2 and 3 of year 2
- teaching practice grades
- school experience journal grade

While the summative assessment will comprise:

- moderated grade from teaching practice in term 1 of year 2
- national examinations to be administered in term 3 of year 2 based on the modules of terms 2 and 3 of year 2.

Scope and sequence

	Year 1	Year 2
Core Element	Term 2	Term 3
Teaching agricultural environment and soil science	<ul style="list-style-type: none"> • Familirialisation with core-elements and rationale for teaching agriculture. (1 hour) -importance of teaching agriculture • Teaching of agriculture: (3 hours) <ul style="list-style-type: none"> - developing schemes of work for agriculture - approaches for teaching agriculture - challenges in the teaching of agriculture - ways of assessing learners work in agriculture • observing lesson (1 hour) • The teaching of agricultural environment and climate change (5 hours) <ul style="list-style-type: none"> - using experimentation to 	<ul style="list-style-type: none"> • Teaching of soil (5 hours) <ul style="list-style-type: none"> - reflection on teaching practice experience (1 hour) - concepts on soils (1 hour) - teaching and learning of soils using experimentation (2 hours) - assessing learners work in agricultural experiments (1 hour)

	Year 1	Year 2
Core Element	Term 2	Term 3
	teach agricultural environment and climate change (1 hours) - using future's wheel to teach causes and effects of climate change (1 hours) - using research method to teach adaptation measures to climate change (1 hour)	
Teaching agribusiness	- developing test items and marking key (2 hours) • Teaching farm records (4 hours) <ul style="list-style-type: none"> - concepts related to farm records (1 hour) - using appropriate method to teach farm records(1 hour) - using checklist and rubric to assess learners work in the teaching of farm records (2 hours) 	• Teaching agricultural marketing (6 hours) <ul style="list-style-type: none"> - theories and concepts of agriculture marketing (1 hour) - developing resources for teaching agricultural marketing(1 hour) - strategies for teaching agricultural marketing (2 hours) - using rubric in assessing learners work in agricultural marketing (1 hour)
Teaching farm tools, machinery and technology	• Teaching irrigation (3 hours) <ul style="list-style-type: none"> - the concept of irrigation (1 hour) - applying appropriate method in teaching irrigation (1 hour) 	• Teaching farm mechanization <ul style="list-style-type: none"> - concepts related to farm mechanisation (5 hours) - developing resources for teaching farm mechanisation (2 hours) - using problem tree to teach farm mechanisation (1

	Year 1	Year 2
Core Element	Term 2	Term 3
	<ul style="list-style-type: none"> - using assessment results to improve teaching and learning of irrigation (1 hour) - observing lesson (1hour) 	hour) <ul style="list-style-type: none"> - assessing learners when teaching farm mechanisation (1 hour)
Teaching crop production practices	<ul style="list-style-type: none"> • Establishing a school garden as a teaching, learning and assessment resource (4 hours) <ul style="list-style-type: none"> - school garden as a teaching and learning resource (1 hour) - establishing a school garden (2 hours) - using a school garden as a teaching, learning and assessment resource (1 hour) • Teaching growing of arable crops (5 hours) <ul style="list-style-type: none"> - the concepts of growing arable crops (1 hour) - developing resources for teaching and learning of arable crops (1 hour) - using practicals to teach the growing of arable crops (2 hours) - assessing learners work in 	<ul style="list-style-type: none"> • Teaching flower production (8 hours) <ul style="list-style-type: none"> - theories and practice of flower production (2 hours) - using school environment as a teaching and learning resource in flower production(2 hours) - developing assessment tools in field trip on flower production(3 hours) - evaluating lessons in flower production(2 hours)

	Year 1	Year 2
Core Element	Term 2	Term 3
	project on growing of arable crops (1 hour)	
Teaching livestock production practices	<ul style="list-style-type: none"> • Teaching poultry production. (6 hours) <ul style="list-style-type: none"> - concepts in poultry production (1 hour) - developing teaching and learning resources in poultry production (1 hour) - practical lessons in poultry production (2 hours) - developing tools for assessing learners when teaching poultry production (1 hour) - assessing learners in poultry production (1 hour) • Teaching of pig production (4 hours) <ul style="list-style-type: none"> - concepts and practices in pig production (2 hours) - appropriate methods of teaching pig production (1 hour) - assessing learners work when teaching pig 	<ul style="list-style-type: none"> • Teaching goat production <ul style="list-style-type: none"> - the concept of goat production (2 hours) - methods for teaching and learning goat production(2 hours) • Teaching rabbits production <ul style="list-style-type: none"> - theory and practice in rabbit production(2 hours) - teaching and learning using project method (1 hour) - assessing learners' work using appropriate tools in a rabbitry project (1hour)

	Year 1	Year 2
Core Element	Term 2	Term 3
	production	

Year 1 Term : 2

Core element : Teaching agricultural environment and soil science

Primary outcome : The student teachers will be able to develop and apply appropriate teaching, learning, assessment and class management strategies to enable the primary school learner to demonstrate an awareness of environmental factors which influence agricultural production and their efficient utilization with emphasis on conservation of soil and water for sustainability.

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
We will know this when Student teachers are able to: <ul style="list-style-type: none"> demonstrate an understanding of the core-element and rationale for teaching and learning 	Student teachers must be able to: <ol style="list-style-type: none"> relate the core-element and its outcome 	Core-elements and rationale for teaching agriculture	<ul style="list-style-type: none"> identifying core-elements and their outcomes. relating the core-elements of the IPTE Agriculture syllabus to their outcomes researching on rationale for teaching 	<ul style="list-style-type: none"> question and answer written exercise workstation jigsaw strategy author's chair 	<ul style="list-style-type: none"> IPTE syllabus local environment ICT chart paper markers word cards crop products animal products

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
procedures when teaching agriculture	<p>lessons</p> <p>2 demonstrate different approaches of teaching agriculture</p> <p>3 analyse different challenges in the teaching of agriculture</p> <p>4 apply</p>		<p>methods</p> <ul style="list-style-type: none"> • adapting activities to suit learners with diverse needs in agriculture • reflecting on student's personal experiences in a large agriculture class. • isolating strengths and challenges that learners face in agriculture • discussing how teachers can manage the challenges in a large class • observing a video clip on management of a large class 	<ul style="list-style-type: none"> • demonstration • peer assessment • research • discussion • presentation • explanation • group work • KWL • group work • discussion • pair work • demonstration • observation 	<ul style="list-style-type: none"> • observation checklist • braille material • resource person • students' experiences • local environment • library • ICT • library • pictures • ICT • local environment • students' experiences • written reports

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
<ul style="list-style-type: none"> demonstrate how to teach agricultural environment and climate change 	<p>appropriate ways of assessing learners' performance in agriculture</p> <p>1 analyse the causes and effects of climate change</p>	<p>Causes and effects of climate change</p> <p>Teaching the principle of greenhouse effect</p>	<ul style="list-style-type: none"> identifying learners' individual strengths and weakness evaluating learner activity books reflecting on own teaching practice. researching on the principle of greenhouse effect synthesising the principle of greenhouse effect examining syllabuses, teachers' guides and learners' books to find out: <ul style="list-style-type: none"> when the topic is taught at primary school. what learners learn about causes and 	<ul style="list-style-type: none"> demonstration observation self-assessment peer assessment pens in the middle research ball bearing case study written reports presentations lecture observation 	<ul style="list-style-type: none"> library ICT local environment rubric checklist braille materials pictures students' experiences presentations

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>2 apply appropriate methods when demonstrating the principle of greenhouse effect</p> <p>3 use appropriate methods to teach causes and effects of climate change</p>	Teaching causes and effects of climate change	<p>effects of climate change.</p> <ul style="list-style-type: none"> conducting an experiment to demonstrate the principle of greenhouse effect. reporting the findings 	<ul style="list-style-type: none"> research/ self-study presentations written report discussion written exercise oral test brainstorming <ul style="list-style-type: none"> KWL future's wheels group work 	<ul style="list-style-type: none"> library ICT local environment rubric checklist braille materials pictures

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	4 apply appropriate methods in teaching of adaptation measures to climate change	The teaching of adaptation measures to climate change.	<p>other identified appropriate teaching methods</p> <ul style="list-style-type: none"> presenting the developed Future's wheel and results for any other identified methods. self- studying on adaptation measures to climate. examining syllabuses, teachers guides and learners books to find out: <ul style="list-style-type: none"> when the topic is taught at primary school. what learners learn about the topic. brainstorming appropriate methods for teaching 	<ul style="list-style-type: none"> mix freeze pair walk around talk around research self-study problem tree <ul style="list-style-type: none"> research/ self-study presentations written report discussion written exercise oral test 	<ul style="list-style-type: none"> library ICT local environment rubric checklist braille materials

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	5 develop skills in assessing learners in theory lesson	Assessing learners in theory lesson	adaptation measures to climate change <ul style="list-style-type: none"> • selecting appropriate methods • practising teaching adaptation measures to climate change using selected methods • developing a test items and a marking key on climate change • critiquing the developed test and marking key 	<ul style="list-style-type: none"> • brainstorming • demonstration • observation • self-assessment • peer assessment 	<ul style="list-style-type: none"> • pictures

Year 1 Term : 2

Core element The teaching of Agribusiness

Primary outcome The student teachers will be able to develop appropriate teaching, learning, assessment and class management strategies to enable the primary school learner to develop positive attitudes towards agriculture as a business. Furthermore to assess basic knowledge and skills of farm business and marketing to develop positive attitudes towards profitability of agricultural enterprises.

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
We will know this when Student teachers are able to: <ul style="list-style-type: none">• Apply appropriate teaching, learning and assessment methods in the teaching	Student teachers must be able to: 1 reflect on concepts related to farm records	Teaching of farm records	<ul style="list-style-type: none">• reviewing concepts of farm records<ul style="list-style-type: none">- meaning of farm records- types of farm records- importance of farm records• discussing the concepts		

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
of farm records	<p>2 use appropriate methods in teaching farm records</p> <p>3 apply appropriate strategies for assessing learners in</p>		<p>of farm records</p> <ul style="list-style-type: none"> identifying levels and depth in which the topic is taught at primary school discussing different methods which can be used in teaching farm records discussing procedures for practical lesson for teaching farm records analysing challenges and strengths of the practical method peer teaching farm records using practical method developing checklist and rubric for observing practical lesson in farm records using checklist and rubric in assessing 		

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	farm records		learners in teaching farm records <ul style="list-style-type: none"> evaluating the strengths and weaknesses of the assessment tools used 		

Year 1 Term : 2

Core element Teaching farm tools, machinery and technology

Primary outcome The student teachers will be able to practise appropriate teaching, learning, assessment and class management strategies and use resources to enable the primary school learner use, maintain farm tools and machinery; apply improved agricultural technology and observe safety rules to increase farm productivity.

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
We will know this when student teachers are able to: <ul style="list-style-type: none"> apply appropriate teaching, learning, and 	Student teachers must be able to: 1 develop an understanding of the concept of irrigation	Teaching of irrigation	<ul style="list-style-type: none"> researching on irrigation concepts <ul style="list-style-type: none"> meaning types importance 	<ul style="list-style-type: none"> research brainstorming card collecting and clustering discussion 	<ul style="list-style-type: none"> word cards braille materials raised diagrams pictures models

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
assessment methods on agricultural technology	<p>2 apply appropriate methods in the teaching of irrigation</p> <p>3 use assessment results to improve teaching and</p>		<ul style="list-style-type: none"> discussing the concepts in irrigation identifying topics on irrigation taught in primary schools analysing methods appropriate for teaching irrigation preparing micro-lessons on irrigation using research method presenting the micro-lessons using the research method exploring assessment methods appropriate for teaching irrigation selecting appropriate assessment methods for 	<ul style="list-style-type: none"> quick write think pair share give one take one question and answer work station research demonstration KWL group work gallery walk discussion question and answer peer assessment self-assessment observation pens in the middle demonstration group work 	<ul style="list-style-type: none"> ICT students' experiences library resource persons local environment braille materials pictures ICT library irrigation tools school garden local environment ICT checklist rubric flip charts braille materials

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	learning of irrigation		teaching irrigation <ul style="list-style-type: none"> • assessing learners in the teaching of irrigation • analysing assessment results to improve teaching and learning 	<ul style="list-style-type: none"> • observation • discussion • question and answer • practical work • written reports • Presentations • Peer assessment • research 	<ul style="list-style-type: none"> • raised diagrams

Year 1 Term : 2

Core element The teaching of crop production practices

Primary outcome The student teachers will be able to practise and assess appropriate teaching, learning, assessment and class management strategies to enable the primary school learner acquire knowledge, skills and develop positive attitudes towards crop production. This will enable the learner to grow selected crops and apply recommended production practices.

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
We will know this when student teachers are able to:	Student teachers must be able to:				
	1 reflect on	Establishing a school garden	<ul style="list-style-type: none"> • reflecting on school 	<ul style="list-style-type: none"> • discussion 	<ul style="list-style-type: none"> • braille materials

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
<ul style="list-style-type: none"> demonstrate an understanding of how to teach growing of vegetables and selected arable crops 	<p>school garden as a teaching, learning and assessment resource</p> <p>2 establish a school garden</p>	<p>as a teaching, learning and assessment resource</p>	<p>garden experiences</p> <ul style="list-style-type: none"> discussing how the school garden was used relating the importance of the school garden to the teaching of agriculture developing plans for establishing a school garden designing school garden establishing the school garden 	<ul style="list-style-type: none"> quick write think pair share give one take one question and answer debate panel discussion roleplaying group work question and answer peer assessment presentation observation discussion research explanation demonstration 	<ul style="list-style-type: none"> pictures of school garden video showing school garden activities students' experiences local environment braille materials ICT device for internet library school garden farm tools

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>3 use the school garden as a teaching, learning and assessment resource.</p> <p>1 develop an understanding of the concepts of arable crop production</p>	Teaching of the growing of arable crops	<ul style="list-style-type: none"> preparing practical lessons on growing of vegetables preparing tools for assessing learners work during practical lessons using school garden as an assessment resource searching for information on maize production practices <ul style="list-style-type: none"> land preparation planting weeding fertiliser application disease and pest control 	<ul style="list-style-type: none"> practical demonstration group work question and answer peer assessment presentation observation discussion research group work question and answer presentation observation discussion written reports gallery walk 	<ul style="list-style-type: none"> local environment ICT checklist library rubric braille materials pictures maize products models drawings realia checklist rubric chart paper local environment school garden local environment library Agriculture teachers' guide agriculture learners' books

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>2 mobilise effective resources for teaching and learning arable crops</p> <p>3 apply appropriate methods in the teaching of arable crop production</p>		<ul style="list-style-type: none"> - harvesting - marketing • discussing maize production practices • identifying resources that can be used in teaching growing of maize • collecting materials for teaching maize production • developing resources for teaching and learning of maize production • displaying teaching and learning resource for teaching maize production • preparing practical lessons on production practices for growing maize • Presenting the practical lessons • Evaluating the practical lessons using checklist • developing assessment 	<ul style="list-style-type: none"> • practical work • Local environment • demonstration • group work • individual work • gallery walk • brainstorming • group work • discussion • question and answer • observation • presentation • practical 	<ul style="list-style-type: none"> • school garden • farm tools • progress reports • rubric • checklist

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	4 Use innovative methods for assessing learners when teaching arable crop production		tools for teaching maize production using project method <ul style="list-style-type: none"> • assessing learners work in a project on growing of maize • using the assessment results to improve teaching and learning of maize production 	<ul style="list-style-type: none"> • demonstration • group work • explanation • presentations • observations • project 	<ul style="list-style-type: none"> • school garden • farm tools • progress reports • rubric • checklist

Year 1 Term

2

Core element

The teaching of livestock production practices

Primary outcome

The student teachers will be able to practice and assess appropriate teaching, learning, assessment and class management strategies to enable the primary school learner to acquire knowledge, skills and develop positive attitudes towards livestock production for profitability.

Assessment standard	Success criteria	Theme/Topic	Suggested teaching and learning activities	Teaching, learning and assessment methods	Suggested teaching and learning resources
We will know this	Student teachers				

Assessment standard	Success criteria	Theme/Topic	Suggested teaching and learning activities	Teaching, learning and assessment methods	Suggested teaching and learning resources
<p>when student teachers are able to:</p> <ul style="list-style-type: none"> • apply basic knowledge and practices when teaching, learning and assessing livestock production 	<p>must be able to:</p> <p>1 analyse concepts in poultry production taught in primary schools</p> <p>2 investigate</p>	<p>Teaching of poultry production</p>	<ul style="list-style-type: none"> • self-studying concepts of poultry production • discussing production practices for poultry • discussing depth of coverage of poultry production in primary school • identifying appropriate methods for teaching and learning poultry production • discussing the 	<ul style="list-style-type: none"> • research • Discussion • jigsaw • question and answer • work stations • think pair share • ball bearing • mix freeze pair • research • discussion • jigsaw • work stations • observation • question and answer 	<ul style="list-style-type: none"> • ICT • library • students' experiences • local environment • agriculture Teachers' Guide • learners' Book • school livestock unit • Braille materials • ICT • students' experiences • checklist • rubric • local environment

Assessment standard	Success criteria	Theme/Topic	Suggested teaching and learning activities	Teaching, learning and assessment methods	Suggested teaching and learning resources
	<p>effective methods for teaching and learning poultry production</p> <p>3 develop appropriate teaching and learning resources for poultry</p>		<p>use of field trip as a method for teaching poultry production</p> <ul style="list-style-type: none"> visiting a nearby farm to learn poultry production evaluating excursion discussing appropriate teaching and learning resources for poultry production developing 	<ul style="list-style-type: none"> project peer assessment demonstration discussion presentation group work observation question and answer peer assessment gallery walk 	<ul style="list-style-type: none"> poultry house poultry feeds feed troughs water troughs poultry models students' experiences rubric check list braille materials poultry products

Assessment standard	Success criteria	Theme/Topic	Suggested teaching and learning activities	Teaching, learning and assessment methods	Suggested teaching and learning resources
	production		<p>appropriate teaching and learning resources for poultry production</p> <ul style="list-style-type: none"> • displaying the teaching and learning resources 		<ul style="list-style-type: none"> • veterinary drugs • chart paper • pictures
	4 construct effective tools for assessing learners work in teaching and learning poultry production		<ul style="list-style-type: none"> • discussing tools used for assessing learners field work in poultry production • constructing assessment tools for field trip in 	<ul style="list-style-type: none"> • research • discussion • jigsaw • work stations • observation • question and answer • peer assessment 	<ul style="list-style-type: none"> • students' experiences • ICT • checklist • rubric • test items • braille materials

Assessment standard	Success criteria	Theme/Topic	Suggested teaching and learning activities	Teaching, learning and assessment methods	Suggested teaching and learning resources
	<p>5 assess learners work in poultry production</p> <p>1 investigate pig production practices</p>	Teaching of pig production	<p>poultry production</p> <ul style="list-style-type: none"> displaying the constructed assessment tools evaluating the assessment tools for field trip lesson in poultry production assessing learners field work for poultry production researching on the pig production practices - housing 	<ul style="list-style-type: none"> gallery walk discussion question and answer observation peer assessment research discussion jigsaw question and answer work stations observation think pair share ball bearing author's chair discussion question and answer observation 	<ul style="list-style-type: none"> Students' experiences checklist rubric poultry house poultry feeds feed troughs water troughs poultry students' experiences ICT library resource

Assessment standard	Success criteria	Theme/Topic	Suggested teaching and learning activities	Teaching, learning and assessment methods	Suggested teaching and learning resources
	2 use appropriate methods in teaching pig production		<ul style="list-style-type: none"> - feeding - disease and parasite control - breeding - marketing - pig and their products 	<ul style="list-style-type: none"> • peer assessment • demonstration • explanation 	<ul style="list-style-type: none"> • person
	3 assess learners' work when teaching pig		<ul style="list-style-type: none"> • discussing on the pig production practices • isolating pig production practices taught in primary schools 	<ul style="list-style-type: none"> • discussion • question and answer • observation • peer assessment 	<ul style="list-style-type: none"> • checklist • students' experiences • written report • internet
			<ul style="list-style-type: none"> • discussing the use of research as a method for teaching pig 	<ul style="list-style-type: none"> • discussion • question and answer • presentation • research 	<ul style="list-style-type: none"> • rubric • checklist • progress record

Assessment standard	Success criteria	Theme/Topic	Suggested teaching and learning activities	Teaching, learning and assessment methods	Suggested teaching and learning resources
	production		production <ul style="list-style-type: none"> • using research method for teaching pig production • identifying appropriate tools for assessing learners when teaching pig production • using the tools to assess learners work when teaching pig production • using assessment results to improve teaching and learning on pig production 		<ul style="list-style-type: none"> • students' experiences

Assessment standard	Success criteria	Theme/Topic	Suggested teaching and learning activities	Teaching, learning and assessment methods	Suggested teaching and learning resources

Year 2 Term

3

Core element

The teaching of agricultural environment and soil science

Primary outcome

The student teachers will be able to develop and apply appropriate teaching, learning, assessment and class management strategies to enable the primary school learner to demonstrate an awareness of environmental factors which influence agricultural production and their efficient utilization with emphasis on conservation of soil and water for sustainability.

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
<p>We will know this when Student teachers are able To:</p> <ul style="list-style-type: none"> demonstrate an awareness of the effective methods in the teaching learning and assessment of the environmental factors which influence agricultural production 	<p>Student teachers must be able to:</p> <p>1 reflect on teaching practice experience</p> <p>2 investigate soil concepts taught in</p>	<p>Teaching of Soil</p>	<ul style="list-style-type: none"> identifying the successes and challenges experienced during the teaching of agriculture in the primary schools discussing contributing factors to the successes and challenges discussing how the challenges were managed researching on soil concepts related to soil identifying topics on soil in the primary agriculture curriculum 	<ul style="list-style-type: none"> work station fish bowl question and answer gallery walk presentations think ink pair share research question and answer KWL gallery walk Peer assessment self-assessment work station question and answer KWL 	<ul style="list-style-type: none"> Reports Students' experiences Wide clips check list braille materials students'

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>primary schools</p> <p>3 analyse appropriate methods that can be used to teach soils in primary schools</p> <p>4 apply appropriate methods in the teaching and learning of soil</p>		<ul style="list-style-type: none"> identifying challenging topics o soils taught in primary schools listing methods that can be used to teach soils evaluating the methods used to teach soils selecting the appropriate methods to teach soils designing an experiment on teaching of soils organising resources for teaching soil using an experiment 	<ul style="list-style-type: none"> gallery walk peer assessment self-assessment written reports self-study research experimentation demonstration excursion question and answer observation KWL group work gallery walk peer assessment self-assessment written reports 	<p>experiences</p> <ul style="list-style-type: none"> library ICI local environment hoes flip chart soil samples pictures showing experiments on soils

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	5 assess learners in agricultural experiments		<ul style="list-style-type: none"> • trial testing the experiments • demonstrating the experiment • designing tools for assessing learners in an experiment • developing tools for assessing learners in an experiment • use the tools for assessing learners' work 	<ul style="list-style-type: none"> • think pair share • question and answer • work stations • gallery walk • experimentation • demonstration 	<ul style="list-style-type: none"> • flip chart • braille materials • checklist • rubric

Year 2 Term

3

Core element

The teaching of Agribusiness

Primary outcome

The student teachers will be able to develop appropriate teaching, learning, assessment and class management strategies to enable the primary school learner to develop positive attitudes towards agriculture as a business.

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
<p>We will know this when Student teachers are able to:</p> <ul style="list-style-type: none"> • apply scientific and technological understanding in the teaching, learning and assessment of agribusiness 	<p>Student teacher must be able to:</p> <ol style="list-style-type: none"> 1 reflect on agricultural marketing as taught in primary schools 2 develop appropriate resources for teaching agricultural marketing 	<p>Teaching of agricultural Marketing</p>	<ul style="list-style-type: none"> • researching on topics related agricultural marketing • relating the topics to the level in the primary school curriculum • discussing marketing functions • reflecting on resources used in the teaching and learning of agriculture during teaching practice • developing appropriate resources for teaching marketing functions • evaluating the developed teaching and learning resources 	<ul style="list-style-type: none"> • research • question and answer • written report • work station • self-study • demonstration • question and answer • KWL • Group work • Gallery walk • Peer assessment 	<ul style="list-style-type: none"> • agriculture primary syllabus • report • ICT • library • students' experiences • local environment • braille materials • flip chart • braille materials • agricultural products • students 'experiences • models • pictures

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	3 apply appropriate methods when teaching agricultural marketing		<ul style="list-style-type: none"> • discussing different methods that can be used to teach agricultural marketing • peer teaching marketing functions using workstation <ul style="list-style-type: none"> - buying and selling - market research - processing - grading • using role-play to teach marketing functions <ul style="list-style-type: none"> - transportation - storage as market functions • developing a case study to teach advertising as a marketing function • using the case study to peer teach advertising as a market function • critiquing micro lessons on agricultural marketing 	<ul style="list-style-type: none"> • work station • demonstration • question and answer • observation • case study • role play • Peer assessment • self-assessment • research 	<ul style="list-style-type: none"> • flip chart • facilities for processing, grading, storing products • sample adverts • pictures • video/audio clips
	4 use		<ul style="list-style-type: none"> • analysing tools that can be 	<ul style="list-style-type: none"> • question and 	<ul style="list-style-type: none"> • sample rubric

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	appropriate tools in assessing learners' work		<p>used to assess learners' work when teaching marketing functions</p> <ul style="list-style-type: none"> • developing a rubric to assess learners when teaching marketing functions • assessing learners' work using rubric when teaching marketing functions 	<p>answer</p> <ul style="list-style-type: none"> • observation • KWL • group work • peer assessment • self-assessment 	<ul style="list-style-type: none"> • students' experiences • local environment • flip chart • primary agriculture teachers' guide • primary agriculture Learners' book

Year 2 Term

3

Core element

The teaching of farm tools, machinery and technology

Primary outcome

The student teachers will be able to practise appropriate teaching, learning, assessment and class management strategies and use resources to enable the primary school learner use, maintain farm tools and machinery; apply improved agricultural technologies and observe safety rules to increase farm productivity.

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
<p>We will know this when student teachers are able to:</p> <p>demonstrate an understanding of teaching, learning and assessing learners on use of improved agricultural technologies</p>	<p>Student teachers must be able to:</p> <p>1 evaluate concepts related to farm mechanisation taught in primary schools</p> <p>2 develop appropriate resources for teaching farm mechanisation</p>	<p>Teaching of farm mechanisation</p>	<ul style="list-style-type: none"> exploring concepts used in farm mechanisation identifying farm tools and machinery taught in primary schools discussing the concepts of farm tools and machinery taught in primary schools. collecting samples and materials for making models of farm tools and machinery modelling some farm tools and machinery drawing and labelling 	<ul style="list-style-type: none"> research card collecting and clustering quick write think ink pair share give one take one question and answer work station KWL Observation one stray three stay observation demonstration group work question and answer peer assessment 	<ul style="list-style-type: none"> ICT pictures library farm tools and equipment word cards braille materials raised diagrams models resource person video clip rubric wire maize stalks clay cardboards charts razor blades

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>3 apply innovative methods when teaching farm mechanisation</p> <p>4 apply appropriate assessment methods in the teaching of farm mechanisation</p>		<p>farm tools and machinery</p> <ul style="list-style-type: none"> displaying samples, models and drawings of farm tools and machinery Evaluating the samples, models and drawings of farm tools and machinery <p>discussing different methods for teaching farm mechanisation</p> <p>identifying appropriate methods for teaching farm mechanisation</p> <p>practising teaching advantages and limitations of farm mechanization using problem tree</p> <p>using appropriate resources when teaching farm mechanisation</p> <p>discussing appropriate methods for assessing learners' work when teaching farm</p>	<ul style="list-style-type: none"> self-assessment gallery walk bus stop <p>problem tree</p> <p>Futures' wheels</p> <p>mind mapping</p> <p>group work</p> <p>case study</p> <p>think ink pair share</p> <p>give one take one</p> <p>card collection and clustering</p> <p>question and answer</p> <p>peer assessment</p>	<ul style="list-style-type: none"> braille materials local environment <p>farm tools and machinery</p> <p>models of farm tools and machinery</p> <p>library</p> <p>resource persons</p> <p>local environment</p> <p>braille materials</p> <p>pictures</p> <p>video clips</p> <p>Agriculture Teachers' guides</p> <p>agriculture Learners' books</p> <p>flip charts</p>

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
			mechanisation <ul style="list-style-type: none"> • selecting appropriate methods for assessing learners' work when teaching farm mechanisation • practising to assess learners' work on farm mechanisation 	<ul style="list-style-type: none"> • question and answer • think pair share • gallery walk • Peer assessment • observation 	<ul style="list-style-type: none"> • local environment • lesson plans • checklist • rubric • braille materials • Test items

Primary outcome The student teachers will be able to practise and assess appropriate teaching, learning, assessment and class management strategies to enable the primary school learner acquire knowledge, skills and develop positive attitudes towards crop production. This will enable the learner to grow selected crops and apply recommended production practices.

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
<p>We will know this when student teachers are able to:</p> <ul style="list-style-type: none"> demonstrate an understanding of teaching, learning and assessing learners on flower production 	<p>Student teachers must be able to:</p> <ol style="list-style-type: none"> summarise flower production practices in primary curriculum use suitable resources for teaching and learning flower production 	<p>Teaching of flower production</p>	<ul style="list-style-type: none"> conducting self-study on flower production isolating flower production practices taught in primary school discussing resources that can be used to teach flower production identifying a suitable resources in the teaching flower production preparing lessons on flower 	<ul style="list-style-type: none"> research quick write question and answer bus stop presentations self-assessment group work demonstration KWL question and answer excursion/field trip question and answer presentation 	<ul style="list-style-type: none"> pictures braille materials local environment flowers flower seeds and cuttings local environment braille materials braille material pictures of flowers flowers primary

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>3 apply effective assessment method for teaching and learning of flower production</p> <p>4 evaluate micro lessons</p>		<p>production</p> <ul style="list-style-type: none"> presenting lessons on flower production identifying strengths and challenges in using school environment as a resource for teaching flower production analysing tools for assessing learners when teaching flower production developing assessment tools for a field trip on flower production assessing learners on flower production observing model lessons on flower production 	<ul style="list-style-type: none"> practical work demonstration group work peer assessment self-assessment gallery walk demonstration observation question and answer presentation presentation question and 	<p>Agriculture Teachers' Guides</p> <ul style="list-style-type: none"> primary agriculture syllabus rubric check list braille materials test items reports braille materials checklist rubric

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	in flower production		<ul style="list-style-type: none"> evaluating the lessons to identify strengths and challenges exploring solutions to the challenges 	answer <ul style="list-style-type: none"> demonstration oral question 	<ul style="list-style-type: none"> chart paper video clip of lessons on flower production students' experiences

Primary outcome The student teachers will be able to practice and assess appropriate teaching, learning, assessment and class management strategies to enable the primary school learner to acquire knowledge, skills and develop positive attitudes towards livestock production for profitability.

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
We will know this when student teachers are able to: <ul style="list-style-type: none"> • apply basic knowledge and practices on teaching, learning and assessing learners in livestock production 	Student teachers must be able to: 1 analyse production practices for goats	Teaching of goat production	<ul style="list-style-type: none"> • self-studying on the production practices for goats <ul style="list-style-type: none"> - breeding - feeding - housing - parasite and disease control • discussing production practices for goats • identifying concepts on goat production taught in primary schools 	<ul style="list-style-type: none"> • self-study • jigsaw • presentations • bus stop • question and answer • excursion • observation experimentation	<ul style="list-style-type: none"> • braille materials • pictures • models • local environment • specimens of parasites • resource persons • drawings of goats
	2 establish suitable		<ul style="list-style-type: none"> • researching on methods for teaching and learning 	<ul style="list-style-type: none"> • demonstration • excursion • question and answer • observation • KWL • group work • gallery walk 	<ul style="list-style-type: none"> • local environment • checklist

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>methods for teaching and learning goat production</p> <p>1 reflect on theory and practice of rabbit production practices</p> <p>2 apply appropriate methods</p>	<p>Teaching of rabbits</p>	<p>goat production</p> <ul style="list-style-type: none"> analysing the methods for teaching goat production identify appropriate methods for teaching goat production <p>exploring rabbit production practices</p> <ul style="list-style-type: none"> discussing the rabbit production practices isolating rabbit production practices taught in primary schools <p>discussing different methods that can be used to teach and learn rabbit</p>	<ul style="list-style-type: none"> peer assessment self-assessment written reports <p>self-study</p> <ul style="list-style-type: none"> jigsaw presentations bus stop question and answer excursion observation <p>experimentation</p>	<ul style="list-style-type: none"> goat farm veterinary drugs specimens of parasites braille materials <p>ICT</p> <ul style="list-style-type: none"> library braille materials rabbits students' experiences agriculture Teachers' Guides agriculture Learners' books local environment <p>ICT</p> <ul style="list-style-type: none"> library students'

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>when teaching and learning rabbit production practices</p> <p>3 use appropriate tools to assess learners' work in rabbit production</p>		<p>production</p> <ul style="list-style-type: none"> evaluating the different methods used to teach and learn rabbit production planning a project that can be carried out to teach and learn rabbit production establishing a rabbitry project for teaching the production practices <ul style="list-style-type: none"> reviewing different tools that can be used to assess learners in project work Evaluating the different tools used to assess learners in a rabbitry project <ul style="list-style-type: none"> Identifying the appropriate tools for assessing learners' in a rabbitry project 	<ul style="list-style-type: none"> project demonstration excursion question and answer observation KWL group work gallery walk peer assessment self-assessment written reports think pair share question and answer <ul style="list-style-type: none"> work stations gallery walk panel discussion making a stand research 	<p>experiences</p> <ul style="list-style-type: none"> local environment rabbit house rabbit feeds feed troughs water troughs rabbits checklist rubric test items students' experiences <ul style="list-style-type: none"> local environment rabbit house rabbit feeds feed troughs water troughs rabbits

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
			<ul style="list-style-type: none"> assessing learners using appropriate tools in a rabbitry project 		

Year 2 Term
Core element

3
Teaching agro-forestry practises

Primary outcome The student teachers will be able to evaluate and apply appropriate teaching, learning, assessment and class management strategies to enable the primary school learner incorporate agroforestry concepts and skills sustainable crop and livestock production.

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
We will know this when student teachers are able to: <ul style="list-style-type: none"> demonstrate an understanding of the teaching, learning and assessing forestry concepts and practices 	1 analyse concepts and management practices of forestry	Teaching of forestry	<ul style="list-style-type: none"> researching the concepts and management practices of forestry sharing the information about the concepts and management practices of forestry comparing the concepts reviewed with the topics taught in primary school agriculture syllabus on forestry 	<ul style="list-style-type: none"> Excursion Question and answer Authors' chair Group work Research Self-study Think-ink-share 	<ul style="list-style-type: none"> Braille materials Pictures Resource person Local environment ICT Library Video clips Charts Learners' experience
	2 use appropriate		<ul style="list-style-type: none"> discussing appropriate methods for teaching 		

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>methods when teaching forestry management practices</p> <p>3 apply appropriate assessment methods when teaching forestry management practices</p>		<p>forestry management practices</p> <ul style="list-style-type: none"> analysing topics on forestry which can be taught using practical methods planning practical lessons on forestry management practices presenting the lessons evaluating the lessons <ul style="list-style-type: none"> analysing assessment methods in the teaching of forestry management practices selecting appropriate methods for assessing learners' performance in a practical lesson on forestry management practices designing appropriate methods for assessing learners' performance in a practical lesson on forestry management and practices developing the appropriate 	<ul style="list-style-type: none"> think pair share group work demonstration self-assessment presentation group work observation bus stop demonstration <ul style="list-style-type: none"> demonstration self-assessment presentation group work observation bus stop demonstration 	<ul style="list-style-type: none"> check list braille materials reports sample lesson plans students' experiences braille materials <ul style="list-style-type: none"> students' experiences checklist local environment oral/aural questions

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>4 reflect theory and practice in agroforestry taught in primary school</p> <p>5 use appropriate resources for teaching and learning of agro-forestry</p>	Teaching of agro-forestry	<p>assessment tools for assessing learners' performance in forestry management and practices</p> <ul style="list-style-type: none"> Using the tools to assess learners in a practical lesson on forestry management practices exploring agro-forestry concepts and practices discussing agro-forestry concepts and practices identifying agro-forestry topics taught in primary school analysing appropriate resources for teaching and learning of agro-forestry selecting appropriate resources for teaching and learning of agro forestry developing appropriate resources for teaching and learning of agro forestry 	<ul style="list-style-type: none"> self-study jigsaw presentations bus stop discussion question and answer excursion observation think pair share case study mix freeze pair walk around talk around KWL 	<ul style="list-style-type: none"> braille materials pictures models resource person local environment ICT Learners' experience library ICT Local environment

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	<p>6 apply appropriate methods in teaching agro forestry practices</p> <p>7 use appropriate method to assess learners on management of agro</p>		<ul style="list-style-type: none"> assembling appropriate resources for teaching and learning of agro forestry displaying appropriate resources for teaching and learning of agro forestry preparing practical lessons in agro forestry presenting practical lessons in agro forestry evaluating practical lessons by identifying strengths in agro forestry analysing various assessment methods in agro forestry management practices identifying assessment methods in agro forestry management practices 	<ul style="list-style-type: none"> brainstorming self-study questions and answer peer assessment presentation group work observation discussion bus stop demonstration self-study question and answer written exercise practice quick write peer assessment 	<ul style="list-style-type: none"> Agro-forestry products Farm tolls Agro-forestry plot Braille materials

Assessment standard	Success criteria	Topic	Suggested teaching, learning and assessment activities	Suggested teaching, learning and assessment methods	Suggested teaching, learning and assessment resources
	forestry plot		<ul style="list-style-type: none"> applying appropriate methods to assess learners in agro forestry management practices 		