



KENYA INSTITUTE OF CURRICULUM DEVELOPMENT
A Skilled and Ethical Society

DIPLOMA IN TEACHER EDUCATION
PRE-PRIMARY AND PRIMARY

INFORMATION AND COMMUNICATION TECHNOLOGY
(ICT) INTEGRATION IN EDUCATION

CURRICULUM DESIGN

2024

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INTRODUCTION

The development of the curriculum for Diploma in Teacher Education for the Pre-Primary and Primary level (**DTE-PP&P**) is a critical milestone in the implementation of Competency Based Curriculum (CBC) in Kenya. The curriculum designs herein have been developed to prepare the teacher trainee to be able to effectively guide the learners at the Pre-Primary and Primary School level; that is from Pre-Primary One (PP1) to Grade Six (G6) in Basic Education.

It is envisaged that the teacher educator will guide the teacher trainees appropriately to embrace the shift from the Objective-Based to the Competency Based Curriculum which is hinged on use of learner-centred pedagogy for realisation of the stated expected learning outcomes. In addition, the emphasis on formative assessment to facilitate learning should be underscored as the basis for determining learner aptitude and performance. Other key aspects that have been introduced include structured micro-teaching, a longer period for the practicum and the introduction of specific Professional Courses that ensure congruence with the CBC vision, mission, pillars and guiding principles as enshrined in the *Basic Education Curriculum Framework* (KICD, 2017).

The DTE-PP&P curriculum seeks to develop the teacher to act as a facilitator in the learning process taking into consideration the different abilities and learning styles of individual target learners. The curriculum has been designed with emphasis on experiential and reflective learning to develop appropriate Pedagogical Content Knowledge (PCK); hence, the emphasis on integrated content and pedagogy for the student teachers while at college. This is to ensure that the student teacher is given adequate time to practice how to facilitate learning of the different strands prescribed in the curriculum designs.

The Curriculum designs for the DTE-PP&P are packaged according to courses of training as follows:

Professional Learning areas

1. Child Development and Psychology
2. Curriculum Studies
3. Educational Resources
4. ICT Integration in Education

5. Educational Assessment
6. Research Skills
7. Inclusive Education
8. Educational Leadership and Management
9. Sociological and Philosophical Foundations of Education
10. Historical and Comparative Foundations of Education
11. Micro Teaching
12. Practicum

Integrated Content and Pedagogy Learning areas

1. English
2. Kiswahili
3. Mathematics
4. Science and Technology
5. Agriculture
6. Home Science
7. Religious Education: CRE/IRE/HRE
8. Social Studies
9. Physical and Health Education
10. Art and Craft
11. Music
12. Indigenous Language
13. Foreign Languages: French/ Arabic/ German/ Mandarin (Chinese)/ KSL

REGULATIONS FOR DIPLOMA IN TEACHER EDUCATION -PRE-PRIMARY AND PRIMARY (DTE-PP&P)

Entry Requirements

The entry requirements for the Diploma in Teacher Education – Pre-Primary and Primary shall be **C Plain** Mean Grade in the Kenya Certificate of Secondary Education examination (KCSE) or its equivalent (as equated by the Kenya National Examinations Council (KNEC). The Special Needs Candidates (SNE) could be admitted with **C Minus (-)** Grade in KCSE or equivalent

Duration of Training

The duration for the Diploma in Teacher Education – Pre-Primary and Primary shall be **three years**.

Subjects Offered

The trainee undertaking the Diploma in Teacher Education – Pre-Primary and Primary (DTE –PP&P) shall take **ALL** courses specified in the DTE- PP&P curriculum; which includes Professional Courses and learning areas (subjects) related to the content in the Pre-Primary and Primary School Curriculum.

Micro-Teaching and Practicum

Micro Teaching shall be undertaken as a course and shall be a pre-requisite for the Practicum; hence a course design has been developed for it. There shall be two (2) school term practicum sessions for which guidelines shall be developed.

Award of the Diploma

To be awarded the Diploma in Teacher Education – Pre-Primary and Primary (DTE-PP&P), the candidate must achieve the following:

- i) Complete the required hours for coursework and pass the stipulated assessment as directed by the Kenya National Examinations Council (KNEC).
- ii) Complete the required hours for the Practicum and pass the stipulated assessment as directed by the Kenya National Examinations Council (KNEC).

Note: If the student teacher fails to meet the requirements for award of the Diploma in Teacher Education – Pre-Primary and Primary (DTE –PP&P) he/she will be allowed to repeat the specific component or learning area failed.

Grading

The Diploma in Teacher Education – Pre-Primary and Primary (DTE PP&P) shall be graded as stipulated by the Kenya National Examinations Council (KNEC).

TABLE 1: DISTRIBUTION OF PROFESSIONAL LEARNING AREAS

	SUBJECT	TERM 1	TER M 2	TER M 3	TERM 4	TER M 5	TER M 6	Sub Total	TERM 7 Micro Teaching - Subject Practicals	TE RM 8	TER M 9	TOTAL FOR COURSE
PROFESSIONAL LEARNING AREAS												PROFESSIONAL LEARNING AREAS (420 Hours)
1.	Child Development and Psychology	10	10	10	10	10	10	60				
2.	Curriculum Studies	30	20	20	20			90				
3.	Educational Resources	10	10	10				30				
4.	ICT Integration in Education	10	10	10				30				
5.	Educational Assessment	10	10	10				30				
6.	Research Skills	10	10	4				30				
7.	Inclusive Education	10	10	10				30				
8.	Educational Leadership and Management				10	10	10	30				
9.	Sociological and Philosophical Foundations of Education				10	10	10	30				
10.	Historical and Comparative Foundations of Education				10	10	10	30				
11.	Micro Teaching	30						30				
SUB TOTAL		120Hrs	80Hrs	80Hrs	60Hrs	40Hrs	40Hrs	420Hrs				

TABLE 2: DISTRIBUTION OF CONTENT + PEDAGOGY (SUBJECTS)

CONTENT + PEDAGOGY (SUBJECTS)												
	SUBJECT	TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6	SUB TOTAL	TERM 7 Micro Teaching - Subject Practicals	TERM 8	TERM 9	TOTAL FOR PROGRAMME
1	English	24	34	34	35	29	30	186	30	Practicum 300 Hours	Practicum 300 Hours	CONTENT & PEDAGOGY (SUBJECTS) (1680 Hrs) + PRACTICUM (600Hrs)
2	Kiswahili	20	20	20	20	20	20	120	20			
3	Mathematics	30	30	30	30	30	30	180	30			
4	Science and Technology	20	20	20	20	20	20	120	30			
5	Agriculture	20	20	20	20	20	20	120	20			
6	Home science	20	20	20	20	20	20	120	20			
7	Religious Education:- (CRE, IRE, HRE)	20	20	20	20	20	20	120	20			
8	Social Studies	20	20	20	20	20	20	120	20			
9.	Physical and Health Education	10	10	10	30	30	30	120	30			
10.	Art and craft	10	30	30	10	20	20	120	20			
11.	Music	10	20	20	20	20	30	120	20			
12.	Indigenous Languages	10	20	20	20	30	20	120	20			
13	Foreign Languages: French/ Arabic/ German/ Mandarin (Chinese)/ KSL	10	10	10	30	30	30	120	20			
SUB TOTAL		230 Hrs	270 Hrs	270 Hrs	290 Hrs	310 Hrs	310 Hrs	1686Hrs				
TOTAL		350	350	350	350	350	350	2100	300	300	300	3000 HRS

NATIONAL GOALS OF EDUCATION

Education in Kenya should:

1. Foster nationalism and patriotism and promote national unity.

Kenya's people belong to different communities, races and religions, but these differences need not divide them. They must be able to live and interact as Kenyans. It is a paramount duty of education to help young people acquire this sense of nationhood by removing conflicts and promoting positive attitudes of mutual respect which enable them to live together in harmony and foster patriotism in order to make a positive contribution to the life of the nation.

2. Promote the social, economic, technological and industrial needs for national development.

Education should prepare the youth of the country to play an effective and productive role in the life of the nation.

a) Social Needs

Education in Kenya must prepare children for changes in attitudes and relationships which are necessary for the smooth progress of a rapidly developing modern economy. There is bound to be a silent social revolution following in the wake of rapid modernization. Education should assist our youth to adapt to this change.

b) Economic Needs

Education in Kenya should produce citizens with the skills, knowledge, expertise and personal qualities that are required to support a growing economy. Kenya is building up a modern and independent economy which is in need of an adequate and relevant domestic workforce.

c) Technological and Industrial Needs

Education in Kenya should provide learners with the necessary skills and attitudes for industrial development. Kenya recognizes the rapid industrial and technological changes taking place, especially in the developed world. We can only be part of this development if our education system is deliberately focused on the knowledge, skills and attitudes that will prepare our young people for these changing global trends.

3. Promote individual development and self-fulfilment

Education should provide opportunities for the fullest development of individual talents and personality. It should help children to develop their potential interests and abilities. A vital aspect of individual development is the building of character.

4. **Promote sound moral and religious values.**

Education should provide for the development of knowledge, skills and attitudes that will enhance the acquisition of sound moral values and help children to grow up into self-disciplined, self-reliant and integrated citizens.

5. **Promote social equity and responsibility.**

Education should promote social equality and foster a sense of social responsibility within an education system which provides equal educational opportunities for all. It should give all children varied and challenging opportunities for collective activities and corporate social service irrespective of gender, ability or geographical environment.

6. **Promote respect for and development of Kenya's rich and varied cultures.**

Education should instill in the youth of Kenya an understanding of past and present cultures and their valid place in contemporary society. Children should be able to blend the best of traditional values with the changing requirements that must follow rapid development in order to build a stable and modern society.

7. **Promote international consciousness and foster positive attitudes towards other nations.**

Kenya is part of the international community. It is part of the complicated and interdependent network of peoples and nations. Education should therefore lead the youth of the country to accept membership of this international community with all the obligations and responsibilities, rights and benefits that this membership entails.

8. **Promote positive attitudes towards good health and environmental protection.**

Education should inculcate in young people the value of good health in order for them to avoid indulging in activities that will lead to physical or mental ill health. It should foster positive attitudes towards environmental development and conservation. It should lead the youth of Kenya to appreciate the need for a healthy environment.

LEVEL LEARNING OUTCOMES FOR DIPLOMA IN TEACHER EDUCATION - PRE-PRIMARY AND PRIMARY (DTE–PP&P)

By the end of the course the teacher trainee should be able to:

1. Model appropriate behaviour and values for Pre-Primary and Primary school learners to emulate for development of good citizenship
2. Communicate and collaborate effectively with learners, peers, parents and the community to create a conducive learning environment.
3. Use appropriate pedagogical approaches to facilitate learning for Pre-Primary and Primary school learners in and out of the classroom
4. Apply inclusive practices to support all Pre-Primary and Primary school learners including those with disabilities and special educational needs
5. Employ ICT skills in the learning process to enhance digital literacy
6. Employ appropriate assessment approaches to promote effective learning
7. Identify and nurture learner’s potential and talents for appropriate placement and transition into Junior School.
8. Develop environmental conservation skills in Pre-Primary and Primary school learners to promote education for sustainable development
9. Create innovative and effective solutions to challenges in the learning process.
10. Integrate pertinent and contemporary issues in learning to enable learners to cope with daily challenges.

ESSENCE STATEMENT

Information Communication Technology (ICT) is concerned with the use of computers and telecommunication systems to acquire, store, process and disseminate data and information for the purpose of supporting decision making at individual or organisational level. ICT subject at teacher education builds on the digital literacy and ICT competencies developed at primary and secondary levels. The curriculum for ICT will respond to the demands of 21st century skills and the aspirations envisioned in the Constitution of Kenya 2010, Kenya Vision 2030, Basic Education Act 2013 and Basic Education Curriculum Framework 2017.

The curriculum will focus on developing and imparting ICT skills as well as preparing a teacher trainee who can safely, securely and ethically integrate ICT tools and online collaboration platforms to enhance learning. The curriculum will further equip the teacher trainee with the competency to develop ICT related projects while observing the socio-ethical and legal issues governing ICT systems and keeping abreast with global development trends.

A teacher trainee should be competent in the appropriate use of ICT for learning purposes. The learning experiences in this curriculum will involve active participation conducted through practical and experiential learning activities. These experiences will develop applicable competencies in the use of ICT in day to day lives and support lifelong learning. The teacher trainee will be empowered to respect, appreciate, identify and participate in ICT opportunities in learning within their local and the international community.

SUBJECT GENERAL LEARNING OUTCOMES

By the end of the Course, the Teacher Trainee should be able to:

1. Examine safety, security and ethical considerations when using ICT in learning.
2. Communicate effectively through the use of information and communication technological innovations.
3. Integrate ICT resources effectively in learning at various levels.
4. Use ICT tools effectively and ethically in collaborative learning.
5. Determine considerations for planning ICT- enhanced lessons.
6. Use ICT to facilitate remote and blended learning effectively for various categories of learners.
7. Examine the concepts and benefits of using ICT to enhance learning and assessment.
8. Evaluate methods of acquiring ICT tools that support both remote and blended learning.
9. Appreciate legal and policy frameworks related to ICT integration in learning.

SUMMARY OF TIME ALLOCATION

Strand	Sub strand	Time
1.0 Information and Communication Technology (ICT) Foundation	1.1 ICT Overview	1 Hour
	1.2 ICT hardware concepts	1 Hour
	1.3 ICT Software Concepts	1 Hour
	1.4 Operating Systems	1 Hour
	1.5 Internet concepts	1 Hour
	1.6 Safety and Ethics	1 Hour
2.0 Productivity tools	2.1 Word processing tools	3 Hours
	2.2 Spreadsheets tools	3 Hours
	2.3 Presentation tools.	3 Hours
	2.4 Desktop Publishing tools	3 Hours
3.0 ICT Integration in learning	3.1 ICT integration in learning concepts	3 Hour
	3.2 Pedagogical Approaches for ICT Integration	2 Hour
	3.3 ICT integrated lesson	2 Hour
	3.4 ICT in Assessment	2 Hours
	3.5 Digital Citizenship	1 hour
4.0 ICT Legal and policy frameworks	4.1 Legal Frameworks	1 Hour
	4.2 Policy Framework	1 Hour
Total Hours		30 hours

1.0: INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOUNDATION

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
1.0 Information and Communication Technology (ICT) Foundation	1.1 ICT Overview	By the end of the sub strand, the teacher trainee should be able to; <ol style="list-style-type: none"> identify technologies used in Communication examine the components of ICT infrastructure in a learning environment, use ICT to perform tasks in a learning environment appreciate the importance of ICT in teaching and learning 	Teacher trainee to: <ul style="list-style-type: none"> brainstorm on the meaning of the terms; information, process, communication, technology, information technology, Information and Communication technology (ICT), ICT integration in learning, discuss technologies used in communication such as computers, tablets, television, radio, websites, blogs, social media, Email, , discuss the components of ICT infrastructure in a learning environment C such as create information, play an educational game, use of interactive apps in learning, search for information 	How are modern technologies used in learning?
<p>Core Competencies to be developed: Learning to learn and Reflective practice: teacher trainee uses ICT to perform a task such as create information, play an educational game, use interactive apps in learning ,search for information. Digital literacy skills: teacher trainee acquires digital skills when using ICT to perform tasks</p>				
<p>Values: Unity :teacher trainee collaborates with others when brainstorming on the meaning of the terms; information, process, communication, technology, information technology, Information and Communication technology (ICT) and ICT integration in learning.</p>				

Suggested Formative Assessment Rubric

Level Expectations	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to identify technologies used in Communication	Identifies technologies used in Communication and gives examples	Identifies technologies used in Communication	Identifies technologies used in Communication with prompts	Identifies technologies used in Communication with a lot of assistance
Ability to examine the components of ICT infrastructure in a learning environment,	Examines the components of ICT infrastructure in a learning environment, and gives a detailed report	Examines the components of ICT infrastructure in a learning environment, and gives a sufficient report	Examines the components of ICT infrastructure in a learning environment and gives a shallow report	Examine the components of ICT infrastructure in a learning environment and gives no report
Ability to use ICT to perform tasks in a learning environment	Demonstrates exceptional ability to use ICT to perform tasks in a learning environment	Shows strong ability to use ICT to perform tasks in a learning environment	Displays some proficiency but with noticeable limitations in using ICT to perform tasks in a learning environment	Shows limited ability to use ICT to perform tasks in a learning environment

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
1.0 Information and Communication Technology (ICT) Foundation	1.2 ICT hardware concepts	By the end of the sub strand, the teacher trainee should be able to; <ol style="list-style-type: none"> a) examine hardware components of ICT devices, b) evaluate factors to consider when selecting ICT hardware device in teaching and learning, c) use ICT hardware to carry out tasks in a teaching and learning environment, d) appreciate the use of ICT hardware in teaching and learning. 	Teacher trainee to: <ul style="list-style-type: none"> ● identify ICT hardware components within the ICT user environment ● classify hardware components into categories such as input, output, storage and processing ● discuss the functions of various hardware components, ● search for information on factors to consider when selecting ICT hardware, ● perform a task using ICT hardware components such as recording video, taking photographs and searching for information, videos, simulations). 	<ol style="list-style-type: none"> 1. Why do some ICT components have more than one function? 2. How are the hardware components of ICT devices used?
Core Competencies to be developed: <ul style="list-style-type: none"> ● Self-efficacy: teacher trainee develops self-esteem when performing tasks using hardware components. ● Communication and collaboration: teacher trainee develops speaking, listening and team working skills when discuss the functions of various hardware components 				
Values: Responsibility: teacher trainee engages in assigned roles when performing a task using hardware components				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to examine hardware components of ICT devices,	Examines all hardware components of ICT devices and gives examples	Examines all hardware components of ICT devices,	Examines some hardware components of ICT devices,	Examines few hardware components of ICT devices,
Ability to evaluate factors to consider when selecting ICT hardware device in teaching and learning,	Evaluate all factors to consider when selecting ICT hardware device in teaching and learning and gives examples.	Evaluates all factors to consider when selecting ICT hardware device in teaching and learning,	Evaluates some factors to consider when selecting ICT hardware device in teaching and learning,	Evaluates few factors to consider when selecting ICT hardware device in teaching and learning,
Ability to use ICT hardware to carry out tasks in a teaching and learning environment,	Effectively uses ICT hardware to carry out tasks in a teaching and learning environment,	Uses ICT hardware to carry out tasks in a teaching and learning environment,	Uses ICT hardware with some help to carry out tasks in a teaching and learning environment,	Use ICT hardware with little help to carry out tasks in a teaching and learning environment

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
1.0 Information and Communication Technology (ICT) Foundation	1.3 ICT software concepts	By the end of the sub strand, the teacher trainee should be able to; <ol style="list-style-type: none"> a) analyse the categories of ICT software in teaching and learning, b) evaluate ways of acquiring ICT software in teaching and learning, c) use ICT software to perform tasks in teaching and learning, d) appreciate the role of ICT software in teaching and learning. 	Teacher trainee to: <ul style="list-style-type: none"> • search for information on categories of ICT software, • discuss the functions of ICT software in teaching and learning, • discuss ways of acquiring software such as vendor off-the shelf, in house, downloading, software as a service, open source in teaching and learning, • explore factors to consider when acquiring ICT software, • perform a task such as booting an ICT device, scan for malware, defragment a storage device, manipulating files. 	<ol style="list-style-type: none"> 1. How are Software used? 2. Why use different ways of acquiring software?
Core Competencies to be developed: <ul style="list-style-type: none"> • Critical thinking and problem solving: teacher trainee develops exploration skills when exploring factors to consider when acquiring software. • Self-efficacy: teacher trainee is confident when performing a task such as booting an ICT device, scan for malware, defragment a storage device, manipulating files 				
Values: <ul style="list-style-type: none"> • Respect: teacher trainee is open minded and accommodates each other's diverse opinions when discussing ways of acquiring software. • Responsibility: teacher trainee takes the role of discussing explore factors to consider when acquiring software 				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to use ICT software in teaching and learning	Demonstrates skilled expertise in using ICT software in teaching and learning	Uses ICT software in teaching and learning,	Uses some ICT software in teaching and learning with help	Uses ICT software in teaching and learning with a lot of help
Ability to evaluate ways of acquiring ICT software in teaching and learning	Evaluates most ways of acquiring ICT software in teaching and learning and gives examples	Evaluates most ways of acquiring ICT software in teaching and learning,	Evaluates some ways of acquiring ICT software in teaching and learning,	Evaluates few ways of acquiring ICT software in teaching and learning,
Ability to use ICT software to perform tasks in teaching and learning	Demonstrates skilled expertise in using ICT software to perform tasks in teaching and learning	Uses ICT software to perform tasks in teaching and learning,	Uses ICT software to perform tasks in teaching and learning with little help	Uses ICT software to perform tasks in teaching and learning with a lot of help

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
1.0 Information and Communication Technology Foundation	1.4 Operating Systems	By the end of the sub strand, the teacher trainee should be able to; a) categorise operating systems according to purpose and user interface, b) install operating systems in ICT devices, c) use operating systems to perform tasks in teaching and learning, d) appreciate the role of operating systems in ICT devices.	Teacher trainee to: <ul style="list-style-type: none"> • brainstorm the meaning of operating systems in ICT devices, • create a classification matrix to categorise operating systems, • install and configure operating systems in ICT devices, • use operating systems to perform tasks such as managing files and folders, disks management in ICT device), • share experiences on the role of operating systems in ICT devices. 	<ol style="list-style-type: none"> 1. What is the importance of operating systems in ICT devices? 2. Why are there many types of operating systems?
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> • Learning to learn and reflective practice: Teacher trainee is deeply involved in an activity to create a classification matrix to categorise operating systems. • Digital literacy skills Teacher trainee acquires digital literacy skills when using operating systems to perform tasks such as managing files and folders. 				
<p>Values: Unity Teacher trainee collaborates with others when brainstorming on the meaning of operating systems in ICT devices.</p>				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to categorise operating systems according to purpose and user interface	Categorises operating systems according to purpose and user interface and gives examples	Categorises operating systems according to purpose and user interface,	Categorises operating systems according to purpose and user interface with some help,	Categorises operating systems according to purpose and user interface with little help,
Ability to install operating systems in ICT devices,	Confidently installs operating systems in ICT devices,	Installs operating systems in ICT devices,	Installs operating systems in ICT devices with little help	Installs operating systems in ICT devices with a lot of help
Ability to use operating systems to perform tasks in teaching and learning	Demonstrates skilled expertise in using operating systems to perform tasks in teaching and learning	Uses operating systems to perform tasks in teaching and learning	Uses operating systems to perform tasks in teaching and learning with little help	Uses operating systems to perform tasks in teaching and learning with a lot of help

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
1.0 Information and Communication Technology (ICT) Foundation	1.5 Internet concepts	By the end of the sub strand, the teacher trainee should be able to; a) examine the use of internet as a resource in teaching and learning, b) use internet services to perform tasks in teaching and learning, c) use email application to share information in learning, d) appreciate the positive impacts of the internet on teaching and learning.	Teacher trainee to: <ul style="list-style-type: none"> • brainstorm the meaning of common terms used with Internet such as Internet, intranet, extranet, website, webpage, URL, Server, search engine, email, World Wide Web (WWW), web, uniform resource locator (URL), application, Internet service provider and surfing, • search information on the use of internet as a resource in learning • use Internet services such as Email, search engines, social media platforms, streaming services, online Learning platforms, cloud storage and file Sharing, E-commerce Sites, News and Information Websites to perform tasks in learning • use email application to share information with teacher trainees, and other stakeholders. • share experiences on positive impacts of the internet on teaching and learning. 	How is the internet used in teaching and learning?
Core Competencies to be developed: <ul style="list-style-type: none"> • Citizenship and Leadership: teacher trainee interacts successfully and respectfully with others while sharing experiences on positive impacts of the internet on teaching and learning. • Communication and Collaboration: teacher trainee works collaboratively with peers when sharing experiences on positive impacts of the internet on teaching and learning. 				
Values: Respect: teacher trainee accommodates each other's diverse opinion when discussing common terminologies used with the Internet.				

Suggested Formative Assessment Rubric

Level Expectations	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to examine the use of internet as a resource in teaching and learning	Examine the use of internet as a resource in teaching and learning and gives examples	Examine the use of internet as a resource in teaching and learning	Examine some use of internet as a resource in teaching and learning	Examines few uses of internet as a resource in teaching and learning,
Ability to use internet services to perform tasks in teaching and learning,	Demonstrates skilled expertise in using internet services to perform tasks in teaching and learning,	Uses internet services to perform tasks in teaching and learning,	Use internet services to perform tasks in teaching and learning with little help	use internet services to perform tasks in teaching and learning with a lot of help
Ability to use email application to share information in learning,	Demonstrates skilled expertise in using email application to share information in learning,	Use email application to share information in learning,	Uses email application to share information in learning, with little help	Uses email application to share information in learning with a lot of help

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
1.0 Information and Communication Technology Foundation	1.6 Safety and Ethics in ICT	<p>By the end of the sub strand, the teacher trainee should be able to;</p> <p>a) examine risks associated with the use of ICT in teaching and learning,</p> <p>b) apply safety measures to secure data in an ICT device,</p> <p>c) observe healthy practices when using ICT technologies in teaching and learning,</p> <p>d) analyse legislation concerns related to ICT in learning,</p> <p>e) appreciate ethical use of ICT in learning,</p>	<p>Teacher trainee to:</p> <ul style="list-style-type: none"> • discuss security threats against data in an ICT device, health risks and ethical issues related to use of ICT, • share experiences on safety measures that curb potential security threats against data, • practice healthy ergonomic requirements in the user environment, • discuss safety measures to secure data in ICT devices <i>such as passwords, user accounts, installation of firewal,</i> • use safety measures to secure data in an ICT device, • share experiences on ethical concerns related to ICT integration in learning, • share experiences on legislation concerns related to ICT integration in learning. 	<ol style="list-style-type: none"> 1. What are the risks related to use of ICT in learning? 2. How are ICT security threats and attacks curbed?
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> • Communication and collaboration: teacher trainee shows respect towards others when discussing safety and health risks related to use of ICT and make a presentation • Citizenship and Leadership: teacher trainee is sensitive to environmental conservation when discussing safety and health risks related to use of ICT 				
<p>Values:</p> <ul style="list-style-type: none"> • Respect: teacher trainee accepts others opinions when discussing share experiences on ethical concerns related to ICT integration in learning • Justice: teacher trainee is democratic when discussing safety and health risks related to use of ICT. 				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to examine risks associated with the use of ICT in teaching and learning,	Examines most risks associated with the use of ICT in teaching and learning and gives examples	Examines most risks associated with the use of ICT in teaching and learning,	Examine some risks associated with the use of ICT in teaching and learning	Examines few risks associated with the use of ICT in teaching and learning,
Ability to apply safety measures to secure data in an ICT device,	Consistently applies safety measures to secure data in an ICT device	Regularly applies safety measures to secure data in an ICT device	Occasionally applies safety measures to secure data in an ICT device	Rarely applies safety measures to secure data in an ICT device
Ability to observe healthy practices when using ICT technologies in teaching and learning,	Consistently observes healthy practices when using ICT technologies in teaching and learning,	Regularly observes healthy practices when using ICT technologies in teaching and learning,	Occasionally observe healthy practices when using ICT technologies in teaching and learning,	Rarely observe healthy practices when using ICT technologies in teaching and learning,
Ability to analyse legislation concerns related to ICT in learning	Analyses legislation concerns related to ICT in learning and gives a detailed report	Analyse legislation concerns related to ICT in learning and gives a sufficient report	Analyses legislation concerns related to ICT in learning and gives a shallow report	Analyses legislation concerns related to ICT in learning and gives no report

2.0 PRODUCTIVITY APPLICATIONS

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
2.0 Productivity applications	2.1 Word Processing Tools	By the end of the sub strand, the teacher trainee should be able to; <ol style="list-style-type: none"> a) select a word processing tool to use in teaching and learning, b) use word processing software to enhance learning process, c) appreciate the use of word processing tools in enhancing teaching and learning. 	Teacher trainee to: <ul style="list-style-type: none"> • brainstorm on the meaning of word processing, word processing tools, examples of word processing tools, • identify appropriate word processing tools for use in teaching and learning, • produce educational documents and teaching materials such as scheme of work, lesson plans, lesson notes, record of work demonstrating effective use of editing, formatting and document organisation. 	<ol style="list-style-type: none"> 1. How can word processing tools be used in teaching and learning? 2. When is it suitable to use word processing tools in teaching and learning?
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> • Critical thinking and problem solving: teacher trainee uses alternative ways when producing educational documents and teaching materials such as scheme of work, lesson plans, lesson notes, record of work demonstrating effective use of editing, formatting and document organisation. • Learning to learn and Reflective Practice: teacher trainee uses word processing tools to produce educational documents and teaching materials by demonstrating effective use of formatting and document organization. 				
<p>Values:</p> <ul style="list-style-type: none"> • Social justice: teacher trainee treats others fairly when brainstorming on the meaning of word processing, word processing tools, examples of word processing tools. 				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectation	Meets Expectation	Approaches Expectation	Below Expectation
Ability to select appropriate word processing tool for use in teaching and learning	Selects appropriate word processing tools that offers advanced features for use in teaching and learning	Selects appropriate word processing tools that have adequate features for use in teaching and learning	Selects appropriate word processing tools that have basic features for use in teaching and learning	Selects appropriate word processing tool that lack necessary features for use in teaching and learning
Ability to use word processing software to enhance learning process	Demonstrates exceptional ability to use word processing software to enhance learning process	Shows strong ability to use word processing software effectively to enhance learning process	Displays some proficiency but with noticeable limitations in using word processing software to enhance learning process	Shows limited ability to use word processing software to enhance learning process

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
2.0 Productivity Tools	2.2 Spreadsheet Tools	<p>By the end of the sub strand, the teacher trainee should be able to;</p> <p>a) select spreadsheet tools to use in teaching and learning,</p> <p>b) use spreadsheet tools to organise and manage data in a learning environment,</p> <p>c) appreciate the importance of spreadsheet tools in teaching and learning.</p>	<p>Teacher trainee to:</p> <ul style="list-style-type: none"> • brainstorm the importance of spreadsheet tools in teaching and learning, • choose the appropriate spreadsheet tools in teaching and learning • organise and manage data such as learners grades and assessments, attendance records, lesson plans, classroom inventory and resources, learners' projects and group work, professional development and training, parent-teacher communication, classroom budgeting and finances, learners' feedback and surveys, performance tracking and analysis, interpreting data to inform instruction. • Share experiences on the importance of spreadsheets software in teaching and learning 	<ol style="list-style-type: none"> 1. How can 2. spreadsheet tools be used in teaching and learning? 3. When is it suitable to use spreadsheet tools in teaching and learning?
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> • Communication and collaboration: teacher trainee takes turns in conversation when brainstorming the importance of spreadsheet tools in teaching and learning • Creativity and Innovation: teacher trainee uses alternative ways when producing educational documents and teaching materials by demonstrating effective use of spreadsheet tools 				
<p>Values: Responsibility as the teacher trainee engages in assigned roles and duties when creating documents in spreadsheet tools</p>				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to select spreadsheet tools for use in teaching and learning	Selects spreadsheet tools that have advanced features for use in teaching and learning	Selects spreadsheet tools have adequate features for use in teaching and learning	Selects spreadsheet tools that have basic features for use in teaching and learning	Selects spreadsheet tools that lack necessary features for use in teaching and learning.
Ability to use spreadsheet tools to organise and manage data in a learning environment.	Demonstrates exceptional ability to use spreadsheet tools to organise and manage data in a learning environment.	Uses spreadsheet tools effectively to organise and manage data in a learning environment.	Displays some proficiency but with limitations in using spreadsheet tools to organise and manage data in a learning environment.	Shows limited ability to use spreadsheet tools to organise and manage data in a learning environment

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
2.0 Productivity tools	2.3 Presentation tools	By the end of the sub strand, the teacher trainee should be able to; <ol style="list-style-type: none"> select a presentation tool to use in teaching and learning, create an interactive presentation for facilitating learning, deliver a slide presentation effectively on a topical area, appreciate the importance of presentation tools in teaching and learning. 	The learner is guided to: <ul style="list-style-type: none"> identify appropriate presentation software used in teaching and learning, create engaging lessons by incorporating multimedia elements, animations interactive elements into slides to actively involve target learners, audience in real time learning, engage learners and audience in real time session with a presentation created of a topical area, share experiences of importance of presentation tools in teaching and learning. 	<ol style="list-style-type: none"> How can presentation tools be used in facilitating learning When is it suitable to use presentation tools teaching and learning?
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> Learning to learn and reflective: teacher trainee uses ICT tools to create engaging lessons by incorporating multimedia elements, animations interactive elements into slides to actively involve target learners, audience in real time learning Pedagogical Content Knowledge :teacher trainee Integrates ICT integration in learning as a pedagogy when engaging learners and audience in real time session with a presentation created of a topical area. 				
<p>Values: Unity: teacher trainee respects others opinion when sharing experiences on importance of presentation tools in teaching and learning.</p>				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to select a presentation tools used for creating presentations in learning	Selects presentation tools that offers advanced features for creating presentations in learning	Selects presentation tools that provides adequate features for creating presentations in learning	Selects presentation tools that has basic features suitable for creating presentations in learning	Selects presentation tools that has limited essential features for creating presentations in learning
Ability to create an interactive presentation for facilitating learning	Demonstrates exceptional ability to create an interactive presentation for facilitating learning	Shows strong ability to create an interactive presentation for facilitating learning.	Displays some proficiency but with noticeable limitations in creating an interactive presentation for facilitating learning.	Shows limited ability to create an interactive presentation for facilitating learning

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
2.0 Productivity tools	2.4 Desktop Publishing Tools	By the end of the sub strand, the teacher trainee should be able to; <ol style="list-style-type: none"> a) select desktop publishing tool to create learning materials, b) design learning materials using desktop publishing tools c) share learning materials created in a desktop publishing tools, d) appreciate the importance of DTP productivity tools in learning. 	Teacher trainee to: <ul style="list-style-type: none"> ● discuss DTP tools used for creating learning materials ● create a publication such as brochures, pamphlets, magazines, books, handouts, notes to use in teaching and learning, ● share with learners and colleagues publications created in DTP tool through a hard copy, pdf, email, upload ● integrate a publication with other applications, apply mail merge to personalize the final publication and share with learners, peers and relevant audiences ● share experiences on the importance of DTP productivity tools in learning 	<ol style="list-style-type: none"> 1. How can desktop publishing tools be used in teaching and learning activities? 2. When is it suitable to use desktop publishing tools in facilitating learning?
Core Competencies to be developed: <ul style="list-style-type: none"> ● Critical thinking and problem solving: teacher trainee explores new ways of doing things when integrating a publication with other applications, applying mail merge to personalize the final publication and share with learners, peers and relevant audiences. ● Creativity and Innovation: teacher trainee enhances creativity when creating a publication such as brochures, pamphlets, magazines, books, handouts, notes to use in teaching and learning. 				
Values: Responsibility: teacher trainee takes assigned roles when creating a publication such as brochures, pamphlets, magazines, books, handouts, notes to use in teaching and learning				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectation	Meets Expectation	Approaches Expectation	Below Expectation
Ability to select desktop publishing tool to create learning materials,	Selects desktop publishing tool that offers advanced features to create learning materials,	Selects desktop tools that provides adequate features to create learning materials,	Selects desktop publishing tool to create learning materials,	Selects desktop publishing tool to create learning materials,
Ability to design learning materials using desktop publishing tools	Demonstrates exceptional ability to design learning materials using desktop publishing tools	Shows strong ability to design learning materials using desktop publishing tools	Displays some proficiency but with noticeable limitations in designing learning materials using desktop publishing tools	Shows limited ability to design learning materials using desktop publishing tools
Ability to share learning materials created in a desktop publishing tools,	share learning materials created in a desktop publishing tools,	share learning materials created in a desktop publishing tools,	share learning materials created in a desktop publishing tools,	share learning materials created in a desktop publishing tools,

3.0: ICT INTEGRATION IN LEARNING

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
3.0 ICT Integration in learning	3.1 ICT tool used in learning	By the end of the sub strand, the teacher trainee should be able to; <ol style="list-style-type: none"> a) examine ICT tools used to facilitate teaching and learning, b) use ICT tools to facilitate teaching and learning, c) appreciate the role of ICT tools in teaching and learning, 	Teacher trainee to: <ul style="list-style-type: none"> • identify ICT tools used for teaching and learning • discuss how ICT tools such as broadcasting tools (Television, Radios), Learning Management Systems (Google Classroom, Moodle, Canvas), Presentation Tools(Microsoft PowerPoint, Google Slides,), Collaborative Tools (Google Docs, Microsoft OneDrive,), Interactive Whiteboards(Smartboards, Promethean Boards), Video Conferencing Tools (Zoom, Microsoft Teams, Google Meet, WhatsApp) Digital Content Creation Tools(Canva, Adobe Spark, Piktochart), Educational Apps and Gamified Learning Tools(Duolingo, Scratch, Edmodo), Online Resource Libraries (Khan Academy, BBC Bitesize, YouTube Education),Digital Classroom Tools (Google class room, ClassDojo, Seesaw),File Sharing and Storage Tools(Google Drive, Dropbox, Microsoft OneDrive), Audio Communication Tools for podcasts (Voxer, Anchor), Social Media Integration(Facebook Groups, Twitter ,Instagram), ,Discussion Forums(Google Classroom, Piazza, Edmodo),Email Communication,(Gmail, Outlook, Google Classroom),Messaging and Announcement Tools (WhatsApp, Remind, ClassDojo, Edmodo) are used in teaching and learning, • use ICT tools to facilitate learning, • share experiences on the importance of ICT tools in teaching and learning. 	How do ICT tools support learning?

<p>Core Competencies to be developed: Self-efficacy: teacher trainee confidently uses ICT integration tools to facilitate learning. Communication and collaboration: teacher trainee discusses how ICT tools are integrated in learning.</p>
<p>Values: Unity: teacher trainee collaborates with peers when sharing experiences on the importance of ICT tools in teaching and learning.</p>

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to examine ICT tools used to facilitate teaching and learning,	Examines ICT tools used to facilitate teaching and learning and gives a detailed report	Examines ICT tools used to facilitate teaching and learning and gives sufficient report	Examines ICT tools used to facilitate teaching and learning and gives a shallow report	Examine ICT tools used to facilitate teaching and learning and no report given
Ability to use ICT tools to facilitate teaching and learning,	Demonstrates exceptional ability to use ICT tools to facilitate teaching and learning	Shows strong ability to use ICT tools to facilitate teaching and learning	Displays some proficiency but with noticeable limitations in using ICT tools to facilitate teaching and learning	Shows limited ability to use ICT tools to facilitate teaching and learning,

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
3.0 ICT Integration in learning	3.2 Pedagogical Approaches for ICT Integration	By the end of the sub strand, the teacher trainee should be able to; a) identify pedagogical approaches for ICT integration in teaching and learning, b) apply pedagogical approaches for ICT integration to facilitate learning, c) appreciate the use of pedagogical approaches for ICT integration in teaching and learning.	Teacher trainee to: • discuss pedagogical approaches for ICT integration in teaching and learning such as blended learning, flipped classroom, project-based learning with ICT, gamification, self-directed learning using online learning resources and digital tools, • use pedagogical approaches for ICT integration to facilitate learning, • share experiences on the importance of pedagogical approaches for ICT integration in teaching and learning.	How can a blended learning approach improve the effectiveness of learning?
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> • Learning to learn and Reflective Practice: teacher trainee uses pedagogical approaches for ICT integration to facilitate learning. • Communication and Collaboration: teacher trainee acquires team work skills when discussing pedagogical approaches for ICT integration in teaching and learning. 				
<p>Values:</p> <ul style="list-style-type: none"> • Peace: teacher trainee tolerates each other's opinions when sharing experiences on the use of blended learning approaches 				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectation	Meets Expectation	Approaches Expectation	Below Expectation
Ability to identify pedagogical approaches for ICT integration in teaching and learning	Identifies pedagogical approaches for ICT integration in teaching and learning and gives examples	Identifies pedagogical approaches for ICT integration in teaching and learning	With some help, identifies pedagogical approaches for ICT integration in teaching and learning	With little help identifies pedagogical approaches for ICT integration in teaching and learning
Ability to apply pedagogical approaches for ICT integration to facilitate learning,	Demonstrates exceptional ability to apply pedagogical approaches for ICT integration to facilitate learning,	Shows strong ability to apply pedagogical approaches for ICT integration to facilitate learning,	Displays some proficiency but with noticeable limitations in applying pedagogical approaches for ICT integration to facilitate learning,	Shows limited ability to apply pedagogical approaches for ICT integration to facilitate learning,

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
3.0 ICT Integration Learning	3.3 ICT Integrated Lesson	By the end of the sub strand, the teacher trainee should be able to; a) explain the importance of ICT integrated lesson in teaching and learning, b) prepare ICT integrated lesson for teaching and learning, c) use prepared ICT integrated lesson to facilitate a lesson, d) appreciate the use of ICT integrated lesson in learning.	Teacher trainee to: <ul style="list-style-type: none"> • discuss the importance of ICT integrated lesson in learning, • use ICT tools to prepare documents used to support learning • use appropriate ICT tools to prepare a lesson • deliver an ICT integrated lesson to target audience • share ICT integrated lesson online. • share experiences on facilitating a live ICT integrated lesson. 	<ol style="list-style-type: none"> 1. What are the benefits of integrating ICT in learning? 2. How ICT can integrated lesson support learning?
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> • Self-efficacy: teacher trainee is confident when delivering an ICT integrated lesson to target audience • Learning to learn and Reflective Practice: teacher trainee empowers themselves to shape the ever-evolving educational demands when using ICT tools to prepare documents used to support learning. 				
<p>Values: Unity: teacher trainee collaborates with others when discussing the importance of ICT integrated lesson in learning</p>				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to explain the importance of ICT integrated lesson in teaching and learning	Explains the importance of ICT integrated lesson in teaching and learning and gives examples	Explains the importance of ICT integrated lesson in teaching and learning	Explains the importance of ICT integrated lesson in teaching and learning with prompts	Explains the importance of ICT integrated lesson in teaching and learning with assistance

Ability to prepare ICT integrated lesson for teaching and learning	Demonstrates exceptional ability to prepare ICT integrated lesson for teaching and learning	Shows strong ability to prepare ICT integrated lesson for teaching and learning	Displays some proficiency but with noticeable limitations in preparing ICT integrated lesson for teaching and learning	Shows limited ability to prepare ICT integrated lesson for teaching and learning
Ability to use prepared ICT integrated lesson to facilitate a lesson	Demonstrates exceptional ability to use prepared ICT integrated lesson to facilitate a lesson	Shows strong ability to use prepared ICT integrated lesson to facilitate a lesson	Displays some proficiency but with noticeable limitations in using prepared ICT integrated lesson to facilitate a lesson	Shows limited ability to use prepared ICT integrated lesson to facilitate a lesson

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
3.0 ICT Integration in learning	3.4 Gamification in Teaching and learning	By the end of the sub strand, the teacher trainee should be able to; <ul style="list-style-type: none"> a) describe the importance of gamification in learning, b) design gamified learning activities to enhance learning, c) implement gamified learning activities in learning, d) appreciate the use of gaming in learning 	Teacher trainee to: <ul style="list-style-type: none"> ● brainstorm the meaning of the term gamification in learning, ● search for applications used to create learning games such as kahoot, Scratch, Edmodo Duolingo, ● develop learning games for different learners in class, ● use developed games to enhance teaching and learning ● share experiences on the use of games in learning. 	<ol style="list-style-type: none"> 1. What kind of games would be most appropriate in learning? 2. How do games improve the efficiency of learning?
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> ● Digital literacy skills: teacher trainee acquires digital manipulation skills when develop learning games for different learners in class. ● Creativity and Innovation teacher trainee uses different ways when developing learning games for different learners in class. 				
<p>Values:</p> <p>Respect: teacher trainee accommodates each other's opinions when brainstorming the meaning of the term gamification in learning</p>				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to explain the importance of ICT integrated lesson in teaching and learning	Explains the importance of ICT integrated lesson in teaching and learning and gives examples	Explain the importance of ICT integrated lesson in teaching and learning	Explains the importance of ICT integrated lesson in teaching and learning with prompts	Explains the importance of ICT integrated lesson in teaching and learning with assistance
Ability to prepare ICT integrated lesson for teaching and learning	Demonstrates exceptional ability to prepare ICT integrated lesson for teaching and learning	Shows strong ability to prepare ICT integrated lesson for teaching and learning	Displays some proficiency but with noticeable limitations in preparing ICT integrated lesson for teaching and learning	Shows limited ability to prepare ICT integrated lesson for teaching and learning
Ability to use prepared ICT integrated lesson to facilitate a lesson	Demonstrates exceptional ability to use prepared ICT integrated lesson to facilitate a lesson	Shows strong ability to use prepared ICT integrated lesson to facilitate a lesson	Displays some proficiency but with noticeable limitations in using prepared ICT integrated lesson to facilitate a lesson	Shows limited ability to use prepared ICT integrated lesson to facilitate a lesson

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
3.0 ICT Integration in learning	3.5 ICT in Assessment	By the end of the sub strand, the teacher trainee should be able to; a) analyse ICT tools used in educational assessment, b) use ICT tools to evaluate learners progress, c) appreciate the use of ICT in educational assessment.	Teacher trainee to: <ul style="list-style-type: none"> • discuss ICT tools used in educational assessment such Online quizzes and tests tools, learning management systems, digital portfolios, interactive assessment tools, adaptive learning platforms, automated grading tools, formative assessment tools, gamified assessment platforms, virtual labs and simulations, speech and language processing tools, electronic Rubrics, polling and Feedback Tools (Mentimeter, Google Forms), • utilise ICT tools for formative, summative assessments and interpreting data to inform learners progress • share experiences on the use of ICT tools in assessment. 	<ol style="list-style-type: none"> 1. How is ICT tools used in educational assessment? 2. When is it most appropriate to use ICT tools in educational assessment?
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> • Assessment Competency as the teacher trainee applies ICT in assessment tools to assess learning • Digital literacy skills: as the teacher trainee uses available resources to search for the importance of ICT in assessment tools 				
<p>Values: Love as the teacher trainee shares experiences gained on usage of ICT in assessment tools</p>				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectation	Meets Expectation	Approaches Expectation	Below Expectation
Ability to analyse ICT tools used in educational assessment,	Analyse ICT tools used in educational assessment and gives examples	Analyse ICT tools used in educational assessment	Analyse ICT tools used in educational assessment with little help	Analyse ICT tools used in educational assessment with a lot of help
Ability to use ICT tools to evaluate learners progress,	Demonstrates exceptional ability to use ICT tools to evaluate learners progress,	Shows strong ability to use ICT tools to evaluate learners progress,	Displays some proficiency but with noticeable limitations in using ICT tools to evaluate learners progress,	Shows limited ability to use ICT tools to evaluate learners progress,

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
3.0 ICT Integration in learning	3.6 Digital Citizenship	<p>By the end of the sub strand the learner should be able to:</p> <p>a) explore the importance of being a good digital citizen in an online learning environment,</p> <p>b) identify appropriate netiquette behaviours in an online learning environment,</p> <p>c) observe appropriate netiquette behaviours in an online learning environment,</p> <p>d) appreciate the importance of responsible use of technologies in a learning environment.</p>	<p>The learner is guided to:</p> <ul style="list-style-type: none"> ● brainstorm on the importance of being a good digital citizen in an online learning environment, ● search for information on what constitutes netiquette behaviors when using online learning platforms, ● analyse and present real-world online scenarios and identify netiquette issues when using online teaching and learning platforms and suggest improvements, ● discuss some of the unethical behaviors on the internet when using online learning platforms, ● adhere to appropriate netiquette behaviours in an online learning environment, ● discuss the importance of maintaining positive and responsible digital footprints in a virtual learning environment, ● adjust privacy settings on various online learning platforms such as social media, email to control the visibility of personal information, ● share experiences of maintaining positive behavior while online. 	<p>How can a teacher trainee use digital technologies responsibly during teaching and learning sessions?</p>
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> ● Critical thinking and problem solving: teacher trainee acquires reflection skills when analysing and presenting real-world online scenarios (emails, forum posts, social media interactions) and identify netiquette issues and suggest improvements. ● Self-efficacy: learner acquires leadership skills when role-playing taking different online personas while adhering to netiquette behaviours and having reviews by their peers. 				

Values:

- Responsibility: learner engages in assigned roles when evaluating information encountered in the internet in order to identify potential biases, misinformation, and the credibility of sources.
- Unity: learner strives to achieve common goal when role-play taking different online personas while adhering to netiquette behaviours and have reviews by their peers

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to explore the importance of being a good digital citizen in an online learning environment,	Explores the importance of being a good digital citizen in an online learning environment and gives examples	Explores the importance of being a good digital citizen in an online learning environment,	Explores the importance of being a good digital citizen in an online learning environment with little help	Explores the importance of being a good digital citizen in an online learning environment with a lot of help
Ability to identify appropriate netiquette behaviours in an online learning environment	Identify appropriate netiquette behaviours in an online learning environment and gives examples	Identifies most appropriate netiquette behaviours in an online learning environment,	Identifies few appropriate netiquette behaviours in an online learning environment with little help	Identify appropriate netiquette behaviours in an online learning environment with a lot of help
Ability to observe appropriate netiquette behaviours in an online learning environment	Consistently observes appropriate netiquette behaviours in an online learning environment	Regularly Observes appropriate netiquette behaviours in an online learning environment	Occasionally Observes appropriate netiquette behaviours in an online learning environment	Rarely observes appropriate netiquette behaviours in an online learning environment

4.0: ICT LEGAL AND POLICY FRAMEWORKS

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
4.0 ICT Legal and policy frameworks	4.1 Legal Frameworks	<p>By the end of the sub strand, the teacher trainee should be able to;</p> <p>a) analyse the importance of a legal framework for ICT integration in learning,</p> <p>b) examine legal frameworks related to ICT integration in learning,</p> <p>c) use legal frameworks to interpret policies in the integration of ICT in learning,</p> <p>d) appreciate the role of legal frameworks in ICT integration in learning.</p>	<p>Teacher trainee to:</p> <ul style="list-style-type: none"> • search for information on the meaning and importance of legal framework relating to ICT integration in learning, • discuss the sections in the legal framework that address ICT integration in learning, • discuss laws that govern integration of ICT in learning such as the Basic Education Act, 2013 (Article 95, 3(k)), computer misuse and cybercrimes act, 2018 and Data protection act, 2019 and present the findings to peers, • use legal frameworks to interpret existing policies in the integration of ICT in learning, • discuss the role of legal frameworks in ICT integration in learning. 	<p>How do legal frameworks influence ICT integration in learning?</p>
<p>Core Competencies to be developed:</p> <ul style="list-style-type: none"> • Creativity and Innovation: teacher trainee uses knowledge, skills, and values acquired to use legal frameworks to interpret existing policies in the integration of ICT in learning. • Citizenship and leadership: teacher trainee Interacts successfully and respectfully with others when discussing laws that govern integration of ICT in learning. 				
<p>Values:</p> <p>Patriotism: teacher trainee obeys laws and regulation when using legal frameworks to interpret existing policies in the integration of ICT in learning.</p>				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to analyse the importance of a legal framework for ICT integration in learning,	Analyses the importance of a legal framework for ICT integration in learning and gives a detailed report	Analyses the importance of a legal framework for ICT integration in learning and gives a sufficient report	Analyses the importance of a legal framework for ICT integration in learning and gives a shallow report	Analyses the importance of a legal framework for ICT integration in learning and never gives a report
Ability to examine legal frameworks related to ICT integration in learning,	Examines legal frameworks related to ICT integration in learning and gave a detailed report	Examines legal frameworks related to ICT integration in learning and gave a sufficient report	Examines legal frameworks related to ICT integration in learning and gave a shallow report	Examines legal frameworks related to ICT integration in learning and never gave a report
Ability to use legal frameworks to interpret policies in the integration of ICT in learning	Ability to use legal frameworks to interpret policies in the integration of ICT in learning	Use legal frameworks consistently to interpret policies in the integration of ICT in learning	Uses legal frameworks regularly to interpret policies in the integration of ICT in learning	Uses legal frameworks occasionally to interpret policies in the integration of ICT in learning

STRAND	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
4.0.ICT Legal and policy frameworks	4.2 Policy Framework	By the end of the sub strand, the Teacher trainee should be able to; a) examine policy frameworks on ICT integration in teaching and learning, b) apply formulated ICT policy in teaching and learning, c) appreciate the role of policy framework in ICT integration in teaching and learning.	Teacher trainee to: <ul style="list-style-type: none"> • search for policies on ICT integration in learning such as National ICT in education and training policy 2021, • role play the application of formulated ICT policies in teaching and learning, • adhere to ICT policies in place in relation to teaching and learning, • share experiences on how to implement ICT guidelines and policies when integrating ICT in teaching and learning, 	How are National policies related to ICT integration in learning?
Core Competencies to be developed: <ul style="list-style-type: none"> • Citizenship and Leadership: teacher trainee acknowledges intercultural sensitivity when role play the application of formulated ICT policies in teaching and learning. • Communication and collaboration: Teacher trainee works collaboratively with others when sharing experiences on how to implement ICT guidelines and policies when integrating ICT in teaching and learning. 				
Values: Patriotism: teacher trainee exhibits honest when adhering to ICT policies in place in relation to teaching and learning				

Suggested Formative Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to examine policy frameworks on ICT integration in teaching and learning,	Examines policy frameworks on ICT integration in teaching and learning, and gave a detailed report	Examine policy frameworks on ICT integration in teaching and learning and gave a sufficient report	Examines policy frameworks on ICT integration in teaching and learning and gave a shallow report	Examines policy frameworks on ICT integration in teaching and learning and no report given
Ability to apply formulated ICT policy in teaching and learning,	Applies formulated ICT policy consistently in teaching and learning always	Applies formulated ICT policy regularly in teaching and learning	Applies formulated ICT policy occasionally in teaching and learning	Applies formulated ICT policy rarely in teaching and learning