Republic of Namibia

MINISTRY OF EDUCATION

LOWER AND UPPER PRIMARY PHASES

JUNIOR AND SENIOR SECONDARY PHASES

**INFORMATION AND COMMUNICATION
TECHNOLOGY LITERACY FOUNDATION LEVEL
SYLLABUS
COMPUTING FUNDAMENTALS
GRADES 1 - 12**

2010

NAMIBIA TRAINING AUTHORITY

This Curriculum was produced by the Project Management Unit of the Namibia Training Authority, operating under the auspices of the Ministry of Education, Government of the Republic of Namibia.

ICT LITERACY SYLLABUS

COMPUTING FUNDAMENTALS

NIED

NATIONAL INSTITUTE FOR EDUCATIONAL DEVELOPMENT

This syllabus was adapted by the National Institute for Educational Development, NIED to accommodate the needs of learners and teachers in primary and secondary levels.

TABLE OF CONTENTS

1. INTRODUCTION

This syllabus describes the intended learning for Information and Communication Technology Literacy for Lower and Upper Primary, Junior and Senior Secondary Phases. As a subject, ICT Literacy is within the technological area of learning in the curriculum, and has thematic links to other subjects across the curriculum.

ICT has become, within a very short period of time, one of the basic building blocks of modern societies. ICT is considered as part of the core skills in education, alongside Learning to learn, Personal, Social, Cognitive, Communication and Numeracy skills. The rapid spread and use of ICTs in all areas of life make this area part of the core skills needed for a knowledge-based society.

Under optimal circumstances, this subject would need 2 periods in a 5 day cycle and in a 7 day cycle for Junior and Senior Secondary phases. It would need also 1 period in a 5 day cycle and in a 7 day cycle for Lower and Upper Primary Phases as well.

2. RATIONALE

ICT has become a tool for development in all sectors, including the Education sector; to the extent that the knowledge and skills to work with computers constitute major requirements for many vocations and contributes to efficiency in many others.

The 21st century is considered as the information era and learners are expected to utilise ICTs to access valuable and updated resources in order to break the digital divide.
The subject ICT Literacy is designed to provide basic skills to use computers and to be aware of its uses and limitations in the modern societies. This subject will allow learners to acquire skills to utilise ICT tools already available in schools and integrate them when learning various subjects offered in schools.

3. AIMS

The syllabus for ICT Literacy aims to:

- prepare the learner to have a basic knowledge of ICT tools, mainly computer hardware and software and to be able to utilise them
- encourage the learner to continue to develop their ICT skills in order to enhance their work in other subject areas
- enable the learner who leaves school to utilise computers and their applications
- enable the learner who continues with school to use the computer effectively as an aid to his/her studies or in his/her occupation in the future
- enable the learner who continues with his/her school career with IT related fields to have a basic understanding to build on
- help the learner to grow in their awareness of the ways in which ICT is used in practical and work-related situations

4. PARTICULAR FEATURES OF THE SUBJECT

ICT literacy foundation level helps learners to develop skills of using a computer and its various application software such as Word Processing and Spreadsheet. It introduces learners to gather online resources and communicate with peers at local and international level.

Information and Communication Technology is an applied subject and all learners will require frequent access to computer and Internet facilities where available to develop their skills. The practical sections of this course can be achieved using any application packages that will allow learners to demonstrate ALL of the skills listed in the relevant sections of this syllabus. For this reason no particular application software or hardware are prescribed. However, learners will learn to use particular applications and teachers are encouraged, with the use of various tools, to help learners to realise that they can apply their skills to as many other types of software.

5. GENDER ISSUES

This syllabus promotes equality of opportunity for males and females, enabling both sexes to participate equally and fully. Teachers should know and understand how to treat learners equally, and all materials should support gender equity. During the teaching and learning process, teachers should be gender sensitive and balanced.

6. LOCAL CONTEXT AND CONTENT

ICT will be most relevant and meaningful for learners if it is used in relation to their immediate environment. Although ICT is universal, it is only by local contextualisation and application that learners will understand and appreciate its uses. Where learning materials can only give general examples, it is recommended that the teacher uses local examples instead.

7. LINKS TO OTHER SUBJECTS AND CROSS-CURRICULAR ISSUES

ICT has the potential to stimulate learners to engage in, enjoy and like learning. Before teaching a specific ICT skill, teachers are encouraged to introduce a specific task to be performed, applying the new skill learnt. Tasks chosen should relate to subjects in the curriculum such as Mathematics, English, Science, etc. and to cross-curricular issues.

ICT, together with Environmental Learning; HIV and AIDS; Population Education and Education for Human Rights and Democracy (EHRD), have been identified as cross-curricular issues. These issues have been introduced to the formal curriculum to be dealt within each subject and across all phases because each of the issues deals with particular risks and challenges in our Namibian society. All of our learners need to:

- understand the nature of these risks and challenges
- know how they will impact on our society and on the quality of life of our people now and in the future
- understand how these risks and challenges can be addressed on a national and global level
- understand how each learner can play a part in addressing these risks and challenges in their own school and local community

The main risks and challenges have been identified as:

- the challenges and risks we face if we do not care for and manage our natural resources
- the challenges and risks caused by HIV and AIDS

- the challenges and risks to health caused by pollution, poor sanitation and waste
- the challenges and risks to democracy and social stability caused by inequity and governance that ignores rights and responsibilities
- the challenges and risks we face from globalisation

The following table shows some examples of using ICT literacy in teaching and learning about cross-curricular issues:

Cross Curricular Issues	
HIV and AIDS	National statistics can be used to create a spreadsheet and perform basic calculations
Population Education	Internet and/or CD-ROM/DVD can be used to retrieve information with regard to this issue. The retrieved information can be analysed or summarised using Word Processing for typing and Spreadsheet for calculations. The final analysis or summary can be attached to an e-mail and sent to the teacher.
Human Rights and Democracy Education	Retrieve information from Internet or CD-ROM/DVD with regard to these issues. Based on the collected information, learners can compile their findings using Word Processing and Spreadsheet and send e-mails to peers and teachers
Environmental Learning	Retrieve information from Internet or CD-ROM/DVD with regard to this issue. Based on the collected information, learners can analyse, reflect and compile a final document using Word Processing and Spreadsheet and send e-mails to peers and teachers
Remark: As enrichment activities, basic newsletters can be created, inserting pictures and/or graphics to create clear and attractive information documents. However the skills of creating columns for newsletter and inserting pictures are not included in this syllabus; the teacher can demonstrate how to perform these tasks, but they will not be assessed.	

8. APPROACH TO TEACHING AND LEARNING

Teachers should use differentiated teaching strategies to accommodate learners with varying abilities and experiences. ICT literacy foundation level is complementary to ICT related subjects such as Computer Studies, Keyboard and Word Processing, etc. and can serve as a tool for meaningful integration across the curriculum.

The ICT Literacy Foundation Level syllabus will be taught at all the four phases: Lower and Upper Primary, Junior and Senior Secondary Levels. The subject and skills are new in all schools except schools providing Computer Studies in Junior and Senior secondary phases.

The approach to teaching and learning is based on a paradigm of learner-centred education described in Ministry policy documents, curriculum guides, and the conceptual framework. This approach ensures optimal quality of learning when the following principles are put into practice.

The aim is to develop learning with understanding, and the skills and attitudes to contribute to the development of society. The starting point for teaching and learning is the fact that the learner brings to the school a wealth of knowledge and social experience gained continually from the family, the community, and through interaction with the environment. Learning in school must involve, build on, extend and challenge the learner's prior knowledge and experience.

Learners learn best when they are actively involved in the learning process through a high degree of participation, contribution and production. At the same time, each learner is an individual with his/her own needs, pace of learning, experiences and abilities. The teacher must be able to sense the needs of the learners, the nature of the learning to be done, and how to shape learning experiences accordingly. Teaching strategies must therefore be varied but flexible within well-structured sequences of lessons.

The teacher must decide, in relation to the learning objectives and competencies to be achieved, when it is best to convey directly; when it is best to let learners discover or explore information for themselves; when they need directed learning; when they need reinforcement or enrichment learning; when there is a particular progression of skills or information that needs to be followed; or when the learners can be allowed to find their own way through a topic or area of content.

The **learner:computer** ratio should be considered when planning lessons. In bigger classes, learners will work in manageable groups in an organised way. For smaller classes, work in groups, in pairs, individually, or as a whole class must therefore be organised as appropriate to the task in hand. Co-operative and collaborative learning should be encouraged wherever possible. In such cases, tasks must be designed so that pair or group work is needed to complete it, otherwise the learners will not see any relevance in carrying out tasks together. As the learners develop personal, social and communication skills, they can gradually be given increasing responsibility to participate in planning and evaluating their work, under the teacher's guidance.

9. SUMMARY OF TOPICS

THEMES/TOPICS	PHASES
1. Identify basic computer equipment and accessories Describe the impact of basic computers on society Describe and apply health and safety standards when using a computer Identify main components of a computer	All
2. Use navigational systems in a computer application Demonstrate the procedures for accessing and exiting a computer Outline the procedures to perform mouse functions Describe and apply the procedures for using menus and icons to select options Describe and demonstrate the procedures for working with window frames Describe and demonstrate the procedures to use a taskbar Outline the procedures to work with files and folders	All
3. Perform basic word processing Demonstrate the procedures for producing a basic word document Demonstrate the procedures to retrieve, format and edit a basic word processing document Outline the procedures for using the Grammar, Spell-check and Thesaurus functions Demonstrate the procedures for using the Help function in a word processing document Outline the produces for printing a word processing document	All
4. Produce Basic Spreadsheets Demonstrate the produces for producing a basic spreadsheet document Demonstrate the procedures to retrieve, format and edit a workbook Outline the procedures to perform basic spreadsheet calculations Demonstrate the procedures for using the help function Outline the produces for printing in a basic spreadsheet	All
5. Use Internet and E-mail Application Outline the procedures to connect to the Internet Outline the procedures to use a browser and search engine Demonstrate the procedures to apply security features Demonstrate the procedures to send and receive e-mails Demonstrate the procedures to use an Address book	All

10. LEARNING CONTENT

Theme 1	Identify basic computer equipment and accessories
Theme purpose	To provide learners with the skills and knowledge required to understand and identify the basic parts and functions of a computer
Relationship with unit standard	This theme addresses the following unit standard: *Use basic computer equipment and accessories*
Summary of topics	On completion of this Theme the learner will be able to: • Describe the impact of basic computers on society • Describe and apply health and safety standards when using a computer • Identify main components of a computer
Topic 1	**Describe the impact of computers on society**
Assessment criteria	This Topic is achieved when the learner can do the following: 1.1 list the main uses of computers in society 1.2 describe the impact of computers on society
Assessment task	Practical, oral and written questions to assess the understanding of the impact of computers on society and the changes brought about by new technologies
Conditions of assessment	The learner will have access to: • Office furniture • Computer • Storage devices • External devices

Content	• Uses of computers
	   - File management
	   - Preparing documents
	   - Retrieving of information
	   - Storage of information
	   - Calculations
	
	• Impact on society
	   - Employment
	   - Access to information
	   - Communication

Topic 2	Describe and apply health and safety standards when using a computer
Assessment criteria	This Topic is achieved when the learner can do the following: 2.1 list the health risks associated with using a computer 2.2 describe ways of minimising health risks when using a computer 2.3 list the reasons for maintaining a clean working environment when

	using a computer
	2.4 describe and demonstrate the appropriate body posture when using a computer
Assessment task	Written or oral assessment on health and safety requirements when using a computer. Practical assessment to demonstrate the correct body posture.
Conditions of assessment	The learner will have access to: • Computer • Office furniture

Content	• Health risks when using a computer
	  - Eyestrain
	  - Repetitive Strain Injury
	• Ways of minimizing health risks
	  - Lighting
	  - Adjustable chair
	  - Position of computer in relation to light sources
	  - Appropriate rest periods
	• Reasons for maintaining a clean work environment
	  - Protecting the computer from dirt, dust, light, heat
	• Posture
	  - Body posture
	  - Distance from screen

Topic 3	**Identify the main components of a computer**
Assessment criteria	This Topic is achieved when the learner can do the following: 3.1 list and describe the main components of a computer 3.2 list and describe basic troubleshooting procedures
Assessment task	Written, practical or oral assessment on identifying and describing computer components including external storage devices and computer connections.
Conditions of assessment	The learner will have access to: • Reference material • Computer • Office furniture • External devices • Storage devices

Content	• Computer components
	  - System unit
	  - monitor
	  - mouse
	  - keyboard
	  - printer
	  - scanner

	• Basic troubleshooting procedures

Delivery of the Theme	

	Facilities and equipment
	• Computer equipment
	o Monitor
	o Keyboard
	o Mouse
	o System unit
	o Printer
	o Connections
	• Storage devices
	o Floppy disc
	o Memory stick
	o CD
	o DVD
	• Office Furniture
	Learning resources The following learning resources may be used to support the delivery of this Theme: • NTA Training Manual – Use basic computer equipment and accessories • Any other relevant resource
	Occupational health and safety Teachers must ensure that relevant Users' Policy Guidelines are observed during the delivery and assessment of this Theme.

Theme 2	Use navigational systems in a computer application
Theme purpose	To provide learners with the knowledge and skills to navigate operating systems
Relationship with unit standard	This Theme addresses the following unit standard: *Use navigational systems in a computer application*
Summary of Topics	On completion of this Theme the learner will be able to: • Demonstrate the procedures for accessing and exiting a computer • Outline the procedures to perform mouse functions • Describe and apply the procedures for using menus and icons to select options • Describe and demonstrate the procedures for working with window frames • Describe and demonstrate the procedures to use a taskbar • Outline the procedures to work with files and folders
Topic 1	**Demonstrate the procedures for accessing and exiting a computer**
Assessment criteria	This Topic is achieved when the learner can do the following: 1.1 list and describe the procedures for starting and shutting down a computer 1.2 describe and apply the procedures for starting and shutting down a computer
Assessment task	Written and practical assessment on accessing and exiting a computer
Conditions of assessment	The learner will have access to: • Computer • Software packages • External devices

Content	• Procedures for accessing a computer
	  – Switch on the computer
	  – Log on a computer
	• Procedures for exiting a computer
	  – Log off a computer
	  – Shut down a computer

Topic 2	**Outline the procedures to perform mouse functions**
Assessment criteria	This Topic is achieved when the learner can do the following: 2.1 list the functions of a mouse 2.2 demonstrate the procedures to perform mouse functions
Assessment task	Written and practical exercises to demonstrate the use and functions of a mouse
Conditions of assessment	The learner will have access to: • Computer • Storage devices • Software packages • External devices

Content	• Mouse functions
	   - Single click
	   - Right-click
	   - Double click
	   - Context menus
	   - Selecting
	   - Drag and drop
	   - Scroll

Topic 3	**Describe and apply the procedures for using menus and icons to select options**
Assessment criteria	This Topic is achieved when the learner can do the following: 3.1 define the terms 'menu' and 'icon' 3.2 identify the different menus of an operating system 3.3 identify the main icons of an operating system 3.4 demonstrate the procedures for using menus of an operating system 3.5 demonstrate the procedures for using icons of an operating system 3.6 apply the procedures to activate a programme from the Start menu
Assessment task	Written and practical exercises to assess ability to open and close programmes using Menus and Icons.
Conditions of assessment	The learner will have access to: • Computer • Software packages • External devices • Office furniture

Content	• Definitions
	   - Menu
	   - Icon
	• Different menus
	• Different icons
	• Procedures
	   - Using menus of an operating system
	   - Using icons of an operation system
	• Use of menus
	• Procedures for activating a start menu

Topic 4	**Describe and demonstrate the procedure for working with Window frames**
Assessment criteria	This Topic is achieved when the learner can do the following: 4.1 describe the purpose for working with Window frames 4.2 describe the basic procedures for working with Window frames 4.3 apply the procedures for working with Window frames
Assessment task	Written and practical exercises on purpose and use of Window frames

Conditions of assessment	The learner will have access to: • Computer • Office furniture • Software packages • External devices

Content	• Purpose of Window frames
	• Basic procedure for working with Window frames
	  - Repositioning
	  - Resizing
	  - Minimizing
	  - Maximizing
	  - Closing
	• Multiple Windows
	  - Opening Windows
	  - Switching between Windows

Topic 5	**Describe and demonstrate the procedures to use a taskbar**
Assessment criteria	This Topic is achieved when the learner can do the following: 5.1 define the terms taskbar 5.2 list and describe the basic functions of the taskbar 5.3 apply the procedures to demonstrate the use of a taskbar
Assessment task	Written and practical exercises to assess ability to use taskbars
Conditions of assessment	The learner will have access to: • Computer • Storage devices • Software packages • External devices • Office furniture

Content	• Definitions
	  - Taskbar
	• Functions
	  - Taskbar
	• Procedures for using taskbars

Topic 6	**Outline the procedures to work with files and folders**
Assessment criteria	This Topic is achieved when the learner can do the following: 6.1 distinguish between files and folders 6.2 describe the purpose for setting up files and folders 6.3 describe the procedure for creating files and folders 6.4 apply the procedure for creating files and folders 6.5 describe the purpose of the recycle bin 6.6 describe and apply the procedure for accessing and emptying a Recycle bin
Assessment task	Written and practical exercises to assess ability to use files and folders

Conditions of assessment	The learner will have access to:
	• Computer
	• Office furniture
	• Storage devices
	• Software packages
	• External devices
Content	• Files
	- Definition
	- Create and manage
	- Move
	- copy
	- rename
	- Delete
	• Folders
	- Definition
	- Create
	- Move
	- Copy
	- Rename
	- Delete
	• Recycle bin
	▪ Definition
	▪ Procedures
	• Access
	• Use
	• Emptying
	▪ Restoring files

Delivery of the Theme	
	Facilities and equipment
	• Reference material
	• Computer
	• Storage devices
	• Software packages
	• External devices
	• Office equipment
	Learning resources
	The following learning resources may be used to support the delivery of this Theme:
	• NTA Training Manual – Use navigational systems in a computer application
	• Any other relevant resource
	Occupational health and safety
	Teachers must ensure that relevant Users' Policy Guidelines are observed during the delivery and assessment of this Theme.

Theme 3	Perform basic word processing
Theme purpose	To provide learners with the knowledge and skills to perform basic word processing
Relationship with unit standard	This Theme addresses the following unit standard: *Perform basic word processing*
Summary of Topics	On completion of this Theme the learner will be able to: • Demonstrate the procedures for producing a basic word document • Demonstrate the procedures to retrieve, format and edit a basic word processing document • Outline the procedures for using the Grammar, Spell-check and Thesaurus functions • Demonstrate the procedures for using the Help function in a word processing document • Outline the produces for printing a word processing document
Topic 1	**Demonstrate the procedures for producing a basic word document**
Assessment criteria	This Topic is achieved when the learner can do the following: 1.1. state the purpose of word processing 1.2. state the advantages and disadvantages of using a word processing programme 1.3 describe and apply the procedures for starting a word processing programme 1.4 describe and apply the procedures for opening, creating, saving and closing a word document 1.5 describe and apply the procedures for exiting a word processing programme 1.6 describe and apply the key functions in working with basic word processing documents
Assessment task	Written, oral and practical exercises to assess ability to produce a basic word document
Conditions of assessment	The learner will have access to: • Computer • Storage devices • Software packages • External devices • Office furniture

Content	• Word processing
	  - Definition
	  - Purpose
	  - Advantages and disadvantages
	• Basic Word processing procedures
	  - Start a word processing programme

	- Open a document - Create a document - Save a document - Close a document - Exit a word processing programme
Topic 2	**Demonstrate the procedures to format and edit a Word processing document**
Assessment criteria	This Topic is achieved when the learner can do the following: 2.1. describe the basic formatting and editing features of a word programme 2.2. apply the basic formatting and editing procedures of a word programme
Assessment task	Oral, written and practical exercises to assess ability on formatting and editing a Word processing document
Conditions of assessment	The learner will have access to: • Computer • Storage devices • Software packages • External devices • Office furniture

Content	• Formatting features
	  - Bold
	  - Italics
	  - Underline
	  - Alignment
	• Editing features
	  – Copy
	  – Paste
	  – Undo / redo
	  – Cut
	  – Move
	  – insert

Topic 3	**Outline the procedures for using the spell-check, grammar and thesaurus functions**
Assessment criteria	This Topic is achieved when the learner can do the following: 3.1 identify the spell-check, grammar and thesaurus functions 3.2 state the reasons for using the spell-check, grammar and thesaurus functions 3.3 apply the spell-check functions 3.4 apply the grammar functions 3.5 apply the thesaurus functions
Assessment task	Oral, written and/or practical exercises assessing the ability to use the spell-check, grammar and thesaurus functions

Conditions of assessment	The learner will have access to: • Computer • Storage devices • Software packages • External devices • Office furniture
Content	• Purpose - Spellchecker - Grammar - Thesaurus • Procedures - Spell-check - Grammar - Thesaurus
Topic 4	**Demonstrate the procedures for using the Help function**
Assessment criteria	This Topic is achieved when the learner can do the following: 4.1 state the purpose of the Help function 4.2 describe the procedures for using the Help function 4.3 apply the procedures for using the Help function
Assessment task	Written and practical exercises to assess ability to use the Help function
Conditions of assessment	The learner will have access to: • Computer • Storage devices • Software packages • External devices • Office furniture
Content	• Purpose of the Help function - Advantages • Procedures for using the Help function - Apply search in using the Help function
Topic 5	**Outline the procedures for printing a basic word processing document**
Assessment criteria	This Topic is achieved when the learner can do the following: 5.1. describe the different printing features 5.2. describe the procedures for printing a basic word processing document 5.3. apply the procedures for printing a basic word processing document

Assessment task	Oral, written and practical exercises to assess ability to print a basic word processing document
Conditions of assessment	The learner will have access to: • Computer • Storage devices • Software packages • External devices • Office furniture
Content	• Definitions of printing features - Page setup - Number of copies - Page range - Properties - Print • Procedures for printing a document

	Delivery of the Theme
	Facilities and equipment • Reference material • Computer • Storage devices • Software packages • External devices • Office furniture
	Learning resources The following learning resources may be used to support the delivery of this Theme: • NTA Training Manual – Perform basic word processing • Any other relevant resource
	Occupational health and safety Teachers must ensure that relevant Users' Policy Guidelines are observed during the delivery and assessment of this Theme.

Theme 4	Produce basic spreadsheets
Theme purpose	To provide learners with the knowledge and skills to produce a basic workbook
Relationship with unit standard	This Theme addresses the following unit standard: *Produce basic spreadsheets*
Summary of Topics	On completion of this Theme the learner will be able to: • Demonstrate the produces for producing a basic spreadsheet document • Demonstrate the procedures to retrieve, format and edit a workbook • Outline the procedures to perform basic spreadsheet calculations • Demonstrate the procedures for using the help function • Outline the produces for printing in a basic spreadsheet
Topic 1	Demonstrate the procedures to produce a basic spreadsheet document
Assessment criteria	This Topic is achieved when the learner can do the following: 1.1 state the purpose of using a basic spreadsheet application 1.2 state the advantages and disadvantages of using a spreadsheet programme 1.3 describe and apply the procedures for using a basic spreadsheet document
Assessment task	Written and practical exercises to assess ability to produce a basic a spreadsheet document
Conditions of assessment	The learner will have access to: • Computer • Storage devices • Software packages • External devices • Office furniture

Content	• Purpose of spreadsheets
	   - Advantages and disadvantages of a spreadsheet
	 • Procedures for using spreadsheets
	   – Start
	   – Create
	   – Save
	   – Exit

Topic 2	**Demonstrate the procedures to format and edit a basic spreadsheet**
Assessment criteria	This Topic is achieved when the learner can do the following: 2.1. describe the basic formatting and editing procedures of a basic spreadsheet 2.2. demonstrate the procedures to apply basic formatting features 2.3. demonstrate the procedures to apply basic editing features
Assessment task	Practical exercises to assess ability to format and edit a basic spreadsheet

Conditions of assessment	The learner will have access to: • Office furniture • Computer • Storage devices • Software packages • External devices

Content	• Formatting features
	  - Bold
	  - Italics
	  - Underline
	• Editing features
	  – Copy
	  – Paste
	  – Redo / undo
	  – Cut
	  – Move
	  – insert

Topic 3	**Outline the procedures to perform basic spreadsheet calculations**
Assessment criteria	This Topic is achieved when the learner can do the following: 3.1 describe the procedure to perform basic arithmetic calculations 3.2 apply the procedures to perform basic arithmetic calculations
Assessment task	Written, oral and practical exercises to assess ability to perform basic arithmetic calculations
Conditions of assessment	The learner will have access to: • Office furniture • Computer • Storage devices • Software packages • External devices

Content	• Procedures to perform basic spreadsheet calculations:
	  - Add
	  - Subtract
	  - Divide
	  - Multiply
	  - Equal to
	  - > / greater than
	  - < / less than

Topic 4	**Demonstrate the procedures for using the Help function in a spreadsheet document**
Assessment criteria	This Topic is achieved when the learner can do the following: 4.1 state the purpose of the Help function 4.2 describe the procedures for using the Help function 4.3 apply the procedures for using the Help function

Assessment task	Oral, written and practical exercises to assess ability on using the Help function
Conditions of assessment	The learner will have access to: • Office furniture • Computer • Storage devices • Software packages • External devices

Content	• Spreadsheet Help functions
	  - Purpose
	  - Procedures
	  - Advantages
	  - Applying search to use the Help function

Topic 5	**Outline the procedures for printing a basic spreadsheet document**
Assessment criteria	This Topic is achieved when the learner can do the following: 5.4 describe the different printing features 5.5 describe the procedures for printing a basic spreadsheet document 5.6 apply the procedures for printing a basic spreadsheet document
Assessment task	Oral, written and practical exercises to assess ability to print a workbook / worksheet
Conditions of assessment	The learner will have access to: • Office furniture • Computer • Storage devices • Software packages • External devices

Content	• Purpose of printing features
	  - Page setup
	  - Number of copies
	  - Page range
	  - Properties
	  - Print
	• Procedures to apply printing features
	  - Page setup
	  - Number of copies
	  - Page range
	  - Properties
	  - Print

Delivery of the Theme	
	Facilities and equipment • Reference material • Computer

	• Storage devices • Software packages • External devices • Office furniture
	Learning resources The following learning resources may be used to support the delivery of this Theme: • NTA Training Manual – Produce basic spreadsheets • Any other relevant resource
	Occupational health and safety Teachers must ensure that relevant Users' Policy Guidelines are observed during the delivery and assessment of this Theme.

Theme 5	Use Internet and E-mail applications
Theme purpose	To provide learners with the knowledge and skills to use e-mail and Internet applications
Relationship with unit standard	This Theme addresses the following unit standard: *Use Internet and e-mail applications*
Summary of Topics	On completion of this Theme the learner will be able to: • Outline the procedures to connect to the Internet • Outline the procedures to use a browser and search engine • Demonstrate the procedures to apply security features • Demonstrate the procedures to send and receive e-mails • Demonstrate the procedures to use an Address book
Topic 1	**Outline the procedures to connect to the Internet**
Assessment criteria	This Topic is achieved when the learner can do the following: 1.1 list the reasons for using the Internet 1.2 list the types of information that may be obtained from the Internet 1.3 Describe and apply procedures to connect to the Internet
Assessment task	Written exercises to assess the purpose and use of the Internet
Conditions of assessment	The learner will have access to: • Office furniture • Computer • Storage devices • Software packages • External devices • Active Internet connections

Content	• Uses of Internet
	     – Purpose
	     – Access information
	 • Services of the Internet
	     – Email
	     – Telnet
	     – FTP
	     – Email discussion groups
	     – Usenet news
	     – Chat and instant messaging
	 • Connecting to the Internet

Topic 2	**Outline the procedures for using a browser and search engine**
Assessment criteria	This Topic is achieved when the learner can do the following: 2.1 describe the purpose of a browser and a search engine 2.2 describe and apply the procedures for using a browser 2.3 describe and apply the procedures for using a search engine

	2.4 describe and apply the procedures for using links and favorites
Assessment task	Oral, written and practical exercises to assess ability to download information from the Internet
Conditions of assessment	The learner will have access to: • Office furniture • Computer • Storage devices • Software packages • External devices • Active Internet connection
Content	• Browser – Purpose – Procedures to use a browser • Search engine – Purpose – Procedures to use a search engine – Selecting a search engine – Choice of relevant information • Links - Definition - Purpose - Procedures • Favorites - Definition - Purpose - Procedures
Topic 3	**Demonstrate the procedures for applying security features**
Assessment criteria	This Topic is achieved when the learner can do the following: 3.1 identify security risks 3.2 identify the ways to minimize security risks 3.3 describe and apply the procedures for accessing and changing the security options in the browser
Assessment task	Written and practical assessment to demonstrate the ability to use and apply security features
Conditions of assessment	The learner will have access to: • Office furniture • Computer • Storage devices • Software packages • Active Internet connection

Content	• Security risks
	   - Definitions
	      o Viruses, spam and passwords
	   - Ways to minimize security risks
	• Minimise risks
	   - Procedures
	• Accessing and changing security options in the browser
	   - Procedures

Topic 4	**Outline the procedures for sending and receiving e-mails**
Assessment criteria	This Topic is achieved when the learner can do the following: 4.1 describe and apply the procedures for sending and receive emails 4.2 describe and apply the procedures for using attachments
Assessment task	Written and practical assessment to assess ability to use e-mail functions
Conditions of assessment	The learner will have access to: • Office furniture • Computer • Storage devices • Software packages • Active Internet connections • Active e-mail connections

Content	• Purpose of email
	   - Using the address fields, composing and sending the message
	   - Using forward and reply features
	   - Receiving mail and using the Inbox functions
	• Attachment
	   - Definition
	   - Adding and opening attachments
	   - Virus risks
	   - Deleting messages from email folders

Topic 5	**Outline the procedures to use an address book**
Assessment criteria	This Topic is achieved when the learner can do the following: 5.1 describe and apply the procedures to create and use an address book 5.2 describe and apply the procedures for using email folders
Assessment task	Oral, written and practical exercises to assess ability to manage an address book and email folders
Conditions of assessment	The learner will have access to: • Office furniture • Computer • Storage devices • Software packages • External devices

	- Active Internet connection

Content	- Address book
	    - Definition
	    - Procedures
	- Grouping addresses to folders
	    - Definition
	    - Procedures

Delivery of the Theme

	Facilities and equipment - Reference material - Computer - Storage devices - Software packages - External devices - Active Internet connection - Office furniture
	Learning resources The following learning resources may be used to support the delivery of this Theme: - NTA Training Manual – Use Internet and email applications - Any other relevant resource
	Occupational health and safety Teachers must ensure that relevant Users' Policy Guidelines are observed during the delivery and assessment of this Theme.

11 ASSESSMENT

A learner-centred curriculum and learner-centred teaching use a broad range of knowledge and skills which are relevant to the knowledge-based society. The basic competencies in the syllabuses state what understanding and skills a learner must demonstrate as a result of a teaching-learning process, and which will be assessed. However, it is intended that the curriculum be learning-driven, not assessment and examination driven. Assessment and examination are to support learning.

11.1 Continuous assessment

In order to capture the full range and levels of competence, a variety of formal and informal continuous assessment situations is needed to give a complete picture of the learner's progress and achievements in all subjects. Continuous assessment must be clear, simple and manageable, and explicitly anchored in learner-centred principles and practice. Teachers must elicit reliable and valid information of the learner's performance in the basic competencies. The information gathered about the learners' progress and achievements should be used to give feedback to the learners about their strong and weak points, where they are doing well, and why, and where they need to try more, how, and why. The parents should be regularly informed about the progress of their child in all subjects, be encouraged to reward achievements, and given suggestions as to how they can support their learning activities.

The learner's progress and achievements in all subjects must be reported to parents on the school report.

11.2 Formative and summative assessment

The two modes of assessment used are formative continuous assessment and summative assessment. Formative continuous assessment is any assessment made during the school year in order to improve learning and to help shape and direct the teaching-learning process. Assessment has a formative role for learners if and when:
- it is used to motivate them to extend their knowledge and skills, establish sound values, and to promote healthy habits of study
- assessment tasks help learners to solve problems intelligently by using what they have learned
- the teacher uses the information to improve teaching methods and learning materials

Summative assessment is an assessment made at the end of the school year based on the accumulation of the progress and achievements of the learner throughout the year in a given subject, together with any end-of-year tests or examinations. The result of summative assessment is a single end-of-year promotion grade.

11.3 Informal and formal methods

The teacher must assess how well each learner masters the basic competencies described in the subject syllabuses and from this gain a picture of the all-round progress of the learner. To a large extent, this can be done in an informal way through structured observation of each learner's progress in learning and practice situations while they are investigating things, interpreting phenomena and data, applying knowledge, communicating, making value judgements, and in their participation in general.
When it is necessary to structure assessment more formally, the teacher should as far as possible use the same sort of situation as ordinary learning and practice situations to assess the competency of the learner. The use of formal written and oral tests can only assess a limited range of competencies and therefore should not take up a great deal of time. Short tests in any subject should be limited to part of a lesson and only exceptionally use up a whole lesson. End-of-term tests should only be written in the first lesson of the day, so that teaching and learning can continue normally for the rest of the time.
In Grade 10 a mock examination may be held to learn examination skills and to identify areas of the syllabus which may need extra attention. Mock examinations only serve a useful purpose if they are used as a learning experience in how to organise oneself, how to read the paper, how to interpret and answer examination-type questions, and how to allocate time in an examination. This involves the teacher going through the paper systematically with the class when their answers are returned.

11.4 Evaluation

Information from informal and formal continuous assessment is to be used by the teacher to know where it is necessary to adapt methods and materials to the individual progress and needs of each learner. At the end of each main unit of teaching, and at the end of each term, the teacher together with the learners should evaluate the process in terms of tasks completed, participation, what the learners have learnt, and what can be done to improve the working atmosphere and achievements of the class.

11.5 Criterion-referenced grades

When grades are awarded in continuous assessment, it is essential that they reflect the learner's actual level of achievement in the Basic Competencies, and are not related to how well other learners are achieving or to the idea that a fixed percentage of the learners must always be awarded a Grade A, B, C, and so on (norm-referencing). In criterion-referenced assessment, each letter grade must have a descriptor for what the learner must demonstrate in order to be awarded the grade. Grade descriptors must be developed for each subject for each year. It is important that teachers in each department/section work together to have a shared understanding of what the grade descriptors mean, and how to apply them in continuous assessment, so that grades are awarded correctly and consistently across subjects. Only then will the assessment results be reliable.

11.6 Grade descriptors

11.6.1 Lower Primary

The learner's summative achievement in the basic competencies in each subject will be shown in letter grades A-E, where A is the highest and E the lowest grade. As far as possible a letter grade should be used directly as the marks. The relation between the letter grades and basic competencies is shown below.

Grades	Points	Grade descriptor
A	5	**Achieved Basic Competencies exceptionally well.** The learner is outstanding in all areas of competency.
B	4	**Achieved Basic Competencies well.** The learner is highly proficient in most areas of competency, e.g. demonstrating rapid mastery of some competencies, or being able to apply competencies to unknown situations or contexts, or demonstrating new insight.
C	3	**Achieved Basic Competencies.** The learner has mastered the competencies satisfactorily in known situations and contexts.
D	2	**Achieved the minimum number of Basic Competencies to be considered competent.** The learner may not have achieved all the competencies, or may sometimes need help, but has sufficient competency to go on to the next grade.
E	1	**Not achieved the majority of Basic Competencies.** The learner has not been able to reach a minimum level of competency, even with extensive help from the teacher, and is in need of learning support.

11.6.2 Upper Primary

The learner's summative achievement in the basic competencies in each subject will be shown in letter grades A-E, where A is the highest and E the lowest grade. The relation between the letter grades and basic competencies is shown below. As far as possible a letter grade should be used directly as the mark.

Grades	Mark range	Grade descriptor
A	80+%	**Achieved Basic Competencies exceptionally well.** The learner is outstanding in all areas of competency.
B	65-79%	**Achieved Basic Competencies well.** The learner is highly proficient in most areas of competency, e.g. demonstrating rapid mastery of some competencies, or being able to apply competencies to unknown situations or contexts, or demonstrating new insight.
C	45-64%	**Achieved Basic Competencies.** The learner has mastered the competencies satisfactorily in known situations and contexts.
D	30-44%	**Achieved the minimum number of Basic Competencies to be considered competent.** The learner may not have achieved all the competencies, or may sometimes need help, but has sufficient competency to go on to the next grade.
E	0-29%	**Not achieved the majority of Basic Competencies.** The learner has not been able to reach a minimum level of competency, even with extensive help from the teacher, and is in need of learning support

11.6.3 Junior and Senior Secondary

In the Junior and Senior Secondary phases, grades A-G and U (ungraded) apply as follows:

Grades	Mark range	Grade descriptor
A	80%+	**Achieved Basic Competencies exceptionally well**. The learner is outstanding in all areas of competency.
B	70-79%	**Achieved Basic Competencies very well**. The learner is highly proficient in most areas of competency.
C	60-69%	**Achieved Basic Competencies well**.
D	50-59%	**Achieved Basic Competencies satisfactorily**.
E	40-49%	**Achieved a sufficient number of Basic Competencies** to exceed the minimum competency level.
F	30-39%	**Achieved the Basic Competencies needed to be considered competent**. The learner needs learning support.
G	20-29%	**Achieved the minimum number of Basic Competencies worthy of a grade**. The learner needs learning support
U	0-19%	**Did not achieve the minimum level of competence**. The learner needs learning support

11.7 Conducting and recording assessment

Continuous assessment should be planned and programmed at the beginning of the year, and kept as simple as possible. Marks given for class activities, practical activities, project work, assignments, homework, and short tests on completion of a topic may be recorded for continuous assessment.

11.8 Assessment objectives

The THREE assessment objectives for ICT literacy are:

11.8.1 Knowledge with Understanding
Learners should be able to demonstrate knowledge with understanding about computing fundamental in relation to:

1. the range of equipment, tools and techniques used to solve simple problems;
2. the effects of the use of computers;
3. the functions of the main hardware and software components of information processing systems.

(Questions assessing these objectives will often begin with words such as: name, identify, define, state, etc.).

11.8.2 Problem Solving

Learners should be able to:
1. identify problems within the field of information processing limited to basic Word Processing and Spreadsheet;
2. analyse problems by considering relevant functional and practical factors;
3. select from a range of resources those which are most suitable for performing a given task;
5. implement solutions using equipment and tools sensibly;

(Questions assessing these objectives will often begin with: explain, compare, create, apply, etc.).

11.8.3   Communication

Learners should be able to:
1. organise, interpret and present data to provide useful information;
2. recognise and present information in a variety of forms;
3. communicate in appropriate ways information about applications of computers, problems and their solutions;

(Questions assessing this objective will often begin with: name, explain/describe the use of ...).

11.9   Continuous Assessment: Detailed guidelines

As ICT literacy foundation level subject is a non-promotional subject, only formative and continuous assessment will be applied. The assessment specified in this syllabus is related to the Basic Competencies specified by the assessment criteria. Those competencies are: investigating, interpreting, applying knowledge and skills, communicating, valuing, participating and how well each learner achieves within the competencies. The table in 11.9.2 specifies how formal assessments are required for assignments, projects and shorter tests, in order to give an overall picture of the learner's knowledge and skills.

11.9.1 Types of Continuous Assessment

Topic Tasks: These are activities that most teachers already use in their day to day teaching. These are recorded, assessed activities that could introduce a topic or be used during teaching of a topic and/or revision of a topic. They may include assessment involving competencies to do with locating information, conducting surveys, analysing information or presenting information.

Project: A project is a longer assignment than a topic task and gives learners an opportunity to complete an investigation into one of the Topic outlined in the syllabus. This type of investigation will enable the teacher and learner to pursue a topic in greater depth and in a more lively and creative way than possible with short discrete topic tasks. At least two projects per year.

Topic Tests: Completed topics should be ended off with a test indicating the achievements of the learners in these topics.

End-of-term Tests: Will be a comprehensive test of the whole term's work. However, the end of term test should not be seen as an examination. Teaching at the end of term should continue when end of term tests are written in the morning. No homework should be assigned during the time of writing end of term tests.

11.9.2 Summary of Continuous Assessment tasks per phase

11.9.2.1 Lower Primary

Only informal continuous assessment is used in Grades 1-4 and no end-of-term tests will be written. No fewer than five and no more than six informal, more structured assessments (two per term) should be done. These assessments must be carefully planned and conducted according to the criterion-based descriptors on the 5-point grading scale (11.6.1). No percentage marks will be used for assessment in the Lower Primary phase.

11.9.2.2 Upper Primary

COMPONENTS	TERM 1		TERM 2		TERM 3	
	Number & Marks	Total CA	Number & Marks	Total CA	Number & Marks	Total CA
Topic tests	1 x 20	20	1 x 20	20	1 x 20	20
Projects	1 x 20	20	1 x 20	20		
End of term tests	1 x 20	20	1 x 20	20	1 x 20	20
Total term marks		60		60		40
Term marks (%)		60 ÷ 0.6 100		60 ÷ 0.6 100		40 ÷ 0.4 100

11.9.2.3 Junior Secondary

Grade 8 and 9

COMPONENTS	TERM 1		TERM 2		TERM 3	
	Number & Marks	Total CA	Number & Marks	Total CA	Number & Marks	Total CA
Topic tests	1 x 20	20	1 x 20	20	1 x 20	20
Projects	1 x 40	40	1 x 40	40		
End of term tests	1 x 30	30	1 x 30	30	1 x 30	30
Total term marks		90		90		50
Term marks (%)		90 ÷ 0.9 100		90 ÷ 0.9 100		50 x 2 100

Grade 10

COMPONENTS	TERM 1		TERM 2	
	Number & Marks	Total CA	Number & Marks	Total CA
Topic tests	1 x 20	20	1 x 20	20
Projects	1 x 40	40	1 x 40	40
End of term tests	1 x 30	30	1 x 30	30
Total term marks		90		90
Term marks (%)		90 ÷ 0.9 100		90 ÷ 0.9 100

11.9.2.4 Senior Secondary

Grade 11

COMPONENTS	TERM 1		TERM 2		TERM 3	
	Number & Marks	Total CA	Number & Marks	Total CA	Number & Marks	Total CA
Topic tests	1 x 20	20	1 x 20	20	1 x 20	20
Projects	1 x 40	40	1 x 40	40		
End of term tests	1 x 30	30	1 x 30	30	1 x 30	30
Total term marks		90		90		50
Term marks (%)		90 ÷ 0.9 100		90 ÷ 0.9 100		50 x 2 100

Grade 12

COMPONENTS	TERM 1		TERM 2	
	Number & Marks	Total CA	Number & Marks	Total CA
Topic tests	1 x 20	20	1 x 20	20
Projects	1 x 40	40	1 x 40	40
End of term tests	1 x 30	30	1 x 30	30
Total term marks		90		90
Term marks (%)		90 ÷ 0.9 100		90 ÷ 0.9 100

Annexe 1. Glossary of Terms

CD: an optical disk on which data such as music, text, or graphic images is digitally encoded.

Compare: Examine and note the similarities or differences of two things or more

Computer: an electronic device that accepts, processes, stores, and outputs data at high speeds according to programmed instructions

Describe: is to state in word the main points of the current topic

Drag and Drop: A feature whereby operations are performed on objects, such as icons or blocks of text, by dragging them across the screen with a mouse

DVD: stands to Digital Video Disk; it is a high-density compact disk for storing large amounts of data, especially high-resolution audio-visual material and can play on a computer, television set

E-mail: a system of world-wide electronic communication in which a computer user can compose a message at one terminal that is generated at the recipient's terminal when he/she logs in

Explain: is to give an account of something with enough clarity and detail to be understood by somebody else

External Devices: A piece of equipment that operates in conjunction with and under the control of a central system, such as a computer or control system, but is not part of the system itself

File: is a set of related records of data or instructions kept together in computer memory

Folder: a conceptual container for computer files in some operating systems, corresponding to a directory or subdirectory

Icon: a graphic symbol (usually a simple picture) that denotes a program or a command or a data file or a concept in a graphical user interface

Internet: A computer network consisting of a worldwide network of computer networks that use the TCP/IP network protocols to facilitate data transmission and exchange

Memory Stick: a small flash drive that can store data for use in portable electronic devices such as handheld computers, digital cameras, and cell phones

Menu: a list of options available to a computer user

Monitor: Display produced by a device that takes signals and displays them on a television screen or a computer display unit

Mouse: A hand-operated electronic device that controls the coordinates of a cursor on your computer screen as you move it around on a pad; on the bottom of the device is a laser beam or a ball that rolls on the surface of the pad

Recycle bin: is electronic garbage which keeps the files intact in case the user wants to restore them, but can be "emptied" from time to time to save disk space.

Scanner: An electronic device that generates a digital representation of an image for data input to a computer. There are different types of scanners for various types of tasks

Scroll Up or Down: move up or down through text or graphics in order to display parts that do not fit on the screen

Spreadsheet: a computer program that displays numerical data in cells in a simulated accountant's worksheet of rows and columns in which hidden formulas can perform calculations on the visible data

Storage Devices: A device that preserves information for retrieval

System Unit: is the main body of a desktop computer containing the motherboard, power supply, cooling fans, internal disk drives and the memory modules

Thesaurus: in computer environment, it is an electronic book containing a classified list of synonyms

Word Processing: an application used for creating, input, editing, and production of documents and texts using a computer system

Annexe 2: Guide To Assess A Project

Program (Any two of the suggested 5)	Spelling Use of Spell checker	Font size - Important headings bigger	Fonts	Display over whole page (layout)	Formatting Width, height	Formulae program	Total
Word Processing e.g. Menu Advertisement	4 4	8 8	2 2	6 6			20 x 2 = 40 20 x 2 = 40
Spreadsheet e.g. Mark sheet	2			2	6	10	20 x 2 = 40

Internet Project

Give a topic to be researched by learners using Internet tools if available in the school. If Internet is not available, schools will be provided with some off-line websites (with the permission of the owners) where learners will apply their skills for information gathering. The topic chosen must be related to one of subjects taught in the school such as Mathematics, English, Science, etc. The teacher is encouraged to consult other teachers in the school to help in selecting relevant topics, taking in consideration the ability and grade level of the learners.

	1	2	3	4	
Evaluate all the criteria in columns 1, 2, 3 and 4	Final document reports exactly the researched topic : **4** - introduction of the topic : **1** - development of the topic: **4** - conclusion : **1**	Spelling – use of spell checker	Layout of the report (display over whole page)	Acknowledge the source of the information	Total Marks
Marks	10	4	4	2	20 x 2 = 40

1.Lower Primary Phase

ICT Literacy   Grade:

Term:

Year: _____

No.	Name of Learner	Date completed >	Assessment 1 — Less structured						M/S Activity	Total	Average	Grade	Assessment 2 — Less structured						M/S Activity	Total	Average	Grade	Summary — Total for Ass. 1+2	Average	Grade for term
1																									
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									
15																									
16																									
17																									
18																									
19																									
20																									
21																									
22																									

23																						
24																						
25																						
26																						
27																						
28																						
29																						
30																						
31																						
32																						
33																						
34																						
35																						
36																						
37																						
38																						
39																						
40																						
41																						
42																						
43																						
44																						
45																						
46																						
47																						
48																						
49																						
50																						

2. Upper Primary Phase

Name of Learner	Term	Project	Topic Test	End of Term Test	Term Mark		CA Mark (%)	Total Year Mark (%)
		20	20	20	60	40	100	100
	1							
	2							
	3							
	1							
	2							
	3							
	1							
	2							
	3							
	1							
	2							
	3							
	1							
	2							
	3							
	1							
	2							
	3							
	1							
	2							
	3							

3. Junior and Senior Secondary Phases

Grade 8, 9 and 11

Name of Learner	Term	Project	Topic Test	End of Term Test		Term Mark	CA Mark (%)	Total Year Mark (%)
		40	20	30	90	50	100	100
	1							
	2							
	3							
	1							
	2							
	3							
	1							
	2							
	3							
	1							
	2							
	3							
	1							
	2							
	3							
	1							
	2							
	3							
	1							
	2							
	3							

Grade 10 and 12

Name of Learner	Term	Project	Topic Test	End of Term Test	Term Mark	CA Mark (%)
		40	20	30	90	100
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					