



ZIMBABWE

MINISTRY OF PRIMARY AND SECONDARY EDUCATION

CURRICULUM DEVELOPMENT AND TECHNICAL SERVICES

ICT

JUNIOR SCHOOL LEVEL

GRADE 3 - 7

2015-2022

TEACHER'S GUIDE

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ORGANISATION OF THE TEACHER'S GUIDE

This Teacher's Guide is divided into two parts, namely, Part A and Part B.

Part A covers the critical documents which you the teacher must have in order to cover the curriculum effectively. The critical documents are:

- The Curriculum Framework for Primary and Secondary Education 2015-2022
- The School Syllabus
- Schemes of work
- Lesson Plans
- Progress Records
- Register of attendance
- Learner Profiles.

Part B deals with curriculum delivery namely the Content, Objectives, Methods and Instructional materials, Classroom Management, Assessment and Evaluation.

PART A

CRITICAL DOCUMENTS

INTRODUCTION

This Teacher's Guide assists you the teacher in handling the ICT learning area. After going through this guide, it is hoped that you will be better able to guide learners in handling this learning area. Accordingly, the guide's main thrust is on the learning and teaching of ICT to learners.

As a teacher it is important for you to have access to the following critical documents in order to deliver the ICT Curriculum effectively:

- Curriculum Framework
- National Syllabus
- School syllabus
- Schemes of Work/Scheme Cum Plan
- Lesson Plans
- Learner Profiles
- Progress Records
- Register of Attendance

RATIONALE

ICT requires learners to pay close attention to developing adequate life and career skills. It adequately equips today's learners in entry-level work and beyond, in further study and lifelong learning, and in their personal lives as inquisitive, reflective, discerning and caring citizens. ICT is significantly enhancing and altering human activities, enabling us to live, work and think in ways that most of us never thought possible. Since technology has an increasingly significant impact, and such broad implications for every individual, groups and entire nations, learners must be prepared to understand, control use and apply ICT in effective and efficient ways.

OBJECTIVES

It is hoped that after going through this unit, you will be able to:

- Implement this ICT Syllabus
- manage your class effectively
- mobilise the teaching and learning resources
- prepare appropriate, engaging teaching aids
- track the learner's progress during the learning process

UNIT 1

CURRICULUM FOR PRIMARY AND SECONDARY EDUCATION (2015 -2022)

INTRODUCTION

The Curriculum Framework 2015-2022 gives a vision and direction of the education system of Zimbabwe and the kind of a school graduate that Zimbabwe needs. It is important for you as a teacher to read and be familiar with the contents of the Curriculum Framework as a policy document to guide you through the implementation of the New Curriculum. This policy document outlines underpinning principles, national philosophy, learning areas, the description and expectations of MOPSE at policy level. It prescribes what the government expects you to deliver as you go about your duties.

OBJECTIVES

By the end of this unit you should be able to:

- understand the contents of the Curriculum Framework
- comprehend the contents of the Secondary school curriculum as a policy to guide you through the implementation of the new curriculum
- understand the principles underpinning the new curriculum
- read and understand the key competencies expounded in the Curriculum Framework

KEY ELEMENTS OF THE CURRICULUM FRAMEWORK

Here are some of the key elements/components that are covered in the curriculum framework:

- Principles and values guiding the curriculum. These include the following among others:
 - Philosophy underpinning the curriculum
 - Policy guidelines
 - Generic principles guiding the curriculum
 - Learner exit profiles
 - Knowledge
 - Skills
 - Values
 - National identity
 - Goals of the curriculum
- Organisation of the school curriculum
- Secondary school goals
- Learning outcomes
- Learning areas
- The learning areas at Secondary School Level
- Visual and Performing Arts

- Physical Education
- Mass Displays
- Indigenous Languages
- Mathematics and Science
- Heritage -Studies
- Information and Communication Technology (ICT)
- Cross-cutting and emerging issues in the Secondary school curriculum
- Languages
- Science and Technology
- Mathematics
- (LOP) Life Orientation Programme
- Visual and Performing Arts
- Physical Education, Sport and Mass Displays
- Agriculture
- Family and Religious Studies (FRS)
- Learning Areas at Secondary school Level (Form 1to Form 4)
- Learning Areas at Forms 5 and 6
- Teaching and learning methods
- Assessment and learning
- Assessment of skills, abilities and knowledge
- Relevance of school-based continuous assessment
- Assessment of learning (formative assessment)
- Assessment of learning (summative assessment)
- Performance - based assessment (PBA)
- Strategies for effective curriculum implementation

UNIT 2

SYLLABUS INTERPRETATION

INTRODUCTION

As a teacher you constitute the backbone of any education system and as such your ability to deliver lessons depends on careful planning. Planning begins with syllabus interpretation, which forms the basis for the development of a National syllabus, School syllabus, Scheme of work and a Lesson plan. You need to learn how to interpret the syllabus correctly

Understanding Syllabus Interpretation

- Simply, it is the process of making sense out of the syllabus.
- Interpretation is about finding meaning.
- It is the process of unpacking the syllabus, analysing and synthesising it.

Interpreting the Syllabus

Syllabus interpretation focuses on the following:

- **The national** philosophy/vision as spelt out in the preamble (as derived from the Framework).
- **The syllabus** aims and objectives: This is what the syllabus intends to achieve within the learners.
- **The content:** This refers to the knowledge, skills, attitudes and competences. Content constitutes the heart of the syllabus. Therefore, syllabus interpretation facilitates breaking down of content into teachable units.

OBJECTIVES

By the end of this unit you should be able to interpret the ICT National Syllabus

TYPES OF SYLLABUSES

Syllabuses are **key documents** for every teacher. There are two types of syllabuses namely the:

- National Syllabus
- School syllabus

As a teacher, you should be able to interpret the National and the School syllabus and these contain the following components; Aims, content, assessment objectives, methodology and the assessment or examination format

NATIONAL SYLLABUS

It is a policy document that outlines and specifies the learning area philosophy, aims and objectives, learning / teaching concepts and content, suggested methodology and assessment criteria at every grade level. You should always have it and use it to guide you in your day-to-day teaching and learning activities.

The National Syllabus consists of:

- **Aims:** Are broad indications of what the learners should learn
- **Objectives:** Learner behavior at the end of the teaching learning experience (competencies).
- **Topics/ Content and activities**
- **Methodology:** This must be learner centered. Therefore, teaching approaches to achieve desired learning outcomes must be learner centred. Learner centered approaches allow learners to practice skills and to display their key competencies.
- Instructional or teaching materials
- Assessment

To interpret the syllabus one needs to identify its components and establish links between and among them. Components of the syllabus include:

(a) **Cover page**

This is the front cover of the syllabus that states the learning area and level.

(b) **Acknowledgements**

This is the list of those who participated in the development of the syllabus. Names are not mentioned but the organisation that the members represented. Funders of the syllabus, experts or consultants are also acknowledged.

(c) **Contents page**

This lists the contents of the syllabus and page numbers.

Preamble

The preamble consists of introductory notes to the syllabus. It has five sub-titles.

Introduction: Gives a brief insight into the learning area.

Rationale: This is a justification of why this particular learning area is included in the curriculum.

Summary of content: This is a summary of what should be learnt in a particular learning area.

Assumptions: Pupils do not come tabula rasa into the classroom. That knowledge that we assume they already have is what we call assumptions.

Cross- cutting themes: These are emerging and contemporary issues that cut across all Learning areas. Teachers should find ways of incorporating them in their teaching whenever possible.

These are:

- ICT
- Gender

- Children rights and responsibilities
- Disaster risk management
- Financial literacy
- Sexuality, HIV and AIDS education
- Child protection
- Human rights
- Collaboration
- Environmental issues

N.B Not all Cross-cutting themes can be applied in all learning areas, some are more applicable to particular learning areas than others.

Presentation of the syllabus

This is a description of how the syllabus is presented.

Aims

These are general statements of what the Learning area intends to achieve (major outcomes). They are long term and therefore broad. They generally cover the whole Learning area for example from ECD A to Grade 2. They may differ from level to level for the same learning area for example Grade 3 to 7. They cover all domains of Bloom's taxonomy and should cater for all learners (inclusivity).

Syllabus objectives

These are specific competencies of the learning areas and are derived from the aims. In curriculum they should be **SMART** (Specific, Measurable, Achievable, Result oriented and Time framed).

Methodology and Time allocation

Methodologies are broad approaches that are suggested for a given Learning area. They are guided by the Curriculum Framework's thrust i.e. skills or competence based, promoting critical thinking and problem solving. They are also child centred rather than teacher centred.

Time allocation

This reflects the number of periods and their duration for a particular Learning area.

Topics

These are the main posts or pillars of the content for the levels given in itemised form. They form the core of a given learning area. In some subjects topics may be based on broad skills for example Languages and Practicals. Topics are broken into sub-topics in the competency matrix depending on the learning area.

Scope and sequence

It shows the depth and breadth of the content. Sequence refers to ordering of the information. Information is arranged according to logical ordering of the subject from the simple to difficult concepts. Generally, the same concept cuts across all levels differing in depth as children progress to higher levels. (Spiral approach)

Competency matrix

It is a table that gives the concepts/content to be taught or competencies to be acquired. It is developed from the Scope and Sequence. It includes Topic/Skill, Objectives, Unit Content and Competence, suggested learning activities and suggested resources.

Assessment

This section gives information on how the learning area will be assessed, the weighting and skills to be tested, types of questions and duration of each paper. It gives information on how the three forms of assessments namely; formative, continuous, and summative will be conducted and the percentage allocated to each. It also includes information on profiling. This section also has assessment objectives, scheme of assessment, specification grid and assessment model.

Content

The content for ICT include:

- ICT Tools
- Creating and Publishing
- Computer Software
- Safety and Security
- The World Wide Web and Online Collaboration
- ICT Enterprise
- Programming
- Communication and Networks

SCHOOL SYLLABUS

Introduction

It is a breakdown of the national syllabus and is drafted at the school level with experts from the learning area. This must be drawn at school level from the National Syllabus by reorganising content taking into account local factors (see unit 2 on Syllabus Interpretation).

Thus a School syllabus is a plan that states exactly what learners should learn at school in a particular learning area for example in ICT. It is a major curriculum document which:

- Prescribes what government would like to see taught in all schools as spelt out in the curriculum framework.
- Outlines the experiences that learners should undergo in a particular course of study for example Infant, Junior and Secondary levels.
- You are required to derive teaching concepts from the syllabus.
- Examinations are set from the syllabus.

Glossary / Appendices

In some syllabuses, there will be a list of explanations of terms and additional information at the end. A list of equipment and reference books might also be found here. As a teacher it is important to have a copy of a School syllabus that is derived from the National syllabus because public examinations are derived from the syllabus.

Drafting the School Based Syllabus

When drafting a school syllabus we must consider the following factors;

- National goals and subject options available on national curriculum list. This states the national identity and philosophy as well as address national needs.
- The learners physical, mental and emotional state:
 - Physical: Consider disabilities, complexity of manipulative skills.
 - Mental: Consider level of maturity and cognitive development.
 - Emotional state: Consider values and attitudes to be developed.
- Resource availability: Consider the facilities and materials available. Consider the qualifications, number, experience and level of training of personnel available.
- Community influences: consider the religion, beliefs and values of local people.
- Evaluation system and strategies: consider how the curriculum is evaluated and whether it will be possible to evaluate effectively in a particular school environment.
- Time allocation in the official syllabus.
- Local conditions that affect the choice and sequencing of topics.
- Education technology.

UNIT 3

SCHEMES OF WORK

This is a document that you should draw from the national and school syllabus. You should outline the objectives, activities, content, and methods (see scheme cum plan template). You should prepare your scheme cum plans two weeks ahead of the lesson delivery date (You can use ICT tools to make your plans)

A scheme of work is a plan for something. Your scheme of work is a plan of action, which should enable you to organize teaching activities ahead of time. It is a summarized forecast of work, which you consider adequate and appropriate for the class to cover within a given period from those topics, which are already in the syllabus. A well-prepared scheme of work does the following:

- Gives an overview of the total course content.
- Provides for a sequential listing of learning tasks.
- Shows a relationship between content and resource materials.
- Provides a basis for long range planning, training and evaluation of the learning area.

A Scheme of work can be made to cover even one term. Each year is divided into three terms, each with approximately three months or thirteen weeks. A scheme of work should be made for each term, ideally before lessons begin. When you are preparing a Scheme of work, you should consider the following:

Understanding the syllabus

You may not have been involved in curriculum development but you are expected to interpret and implement it correctly. This calls for a thorough understanding of the syllabus and the content in order to achieve the stated objectives. Your role is simply to implement the syllabus as it is. It is important for you to be thoroughly conversant with the curriculum in order to implement it successfully.

Syllabus content

Topics in the syllabus may not be arranged in the order they are supposed to be taught. Some topics need to be linked, while others are quite independent. You should both identify essential learning content and arrange it in a logical order. Related subjects should also be considered when scheming. Subject integration should be prioritised where possible

Reference materials

You should be familiar with available reference material necessary for effective coverage of the topics in the scheme of work. You should effectively make use of learning resources in your environment.

Assessment

Learners will be assessed in both continuous and summative methods. Your scheming should reflect this.

Time allocation

Your scheme should be contextual. That is, it should take context of disturbances that may occur during the course of term, such as public holidays, internal examinations open days, sports days, visits from the district and the province.

Objectives

Each lesson should have objectives, which pinpoint the anticipated learning behaviour of the learners. The objectives must be **SMART**. For example: Learners should be able to identify types of social stratification.

Methods

You should state specific activities that you and the learners will perform, for example naming types of social stratification, discussing, identifying, distinguishing, etc.

Resources

Resources necessary for content coverage should be noted down with relevant page numbers, for ease of referencing during lesson planning. References include books, journals, handouts, magazines etc. Teaching resources also include equipment or apparatus that is available and appropriate. You should not indicate a teaching media that will not be available

Evaluation

This should be done immediately and timely, well before the next lesson. Indicate whether what was planned for has been covered, whether there was over planning or failure of a lesson and reasons for either case to help you in consequent and future planning. Avoid remarks like excellent, O.K, taught, because they are not relevant. Indicate strengths and weaknesses of the lessons taught.

COMPONENTS OF A SCHEME OF WORK

The components of a scheme of work are:

- **Level of learners** - state the level (Form) of learners you are scheming for.
- **Subject** - indicate the learning area you are scheming for.
- **Week ending** - the date should be clearly indicated
- **Topic** - topics should follow the order, which they are supposed to be taught, from simple to complex.

The layout of a Scheme of Work is usually horizontal and comprises of the following columns:

WEEK ENDING	TOPIC/ CONTENT	OBJECTIVES_	COMPETENCES/ SKILLS	SOURCE OF MATERIAL	MEDIA	SUGGESTED METHODS/ ACTIVITIES	EVALUATION
		<u>By the end of the week pupils should be able to</u>					

EXAMPLE OF SCHEMES OF WORK

WEEK ENDING	TOPIC/ CONTENT	OBJECTIVES_	COMPETENCES/ SKILLS	SOURCE OF MATERIAL	MEDIA	SUGGESTED METHODS/ ACTIVITIES	EVALUATION
20/02/2017	ICT Tools	<u>By the end of the week pupils should be able to</u> -identify different types of personal computers -describe different types of computers -match computer pictures with their names	-identifying -describing -matching	-National ICT syllabus -ICT textbook -Teacher's re-source book for the above	ICT tools Charts Pictures	-identifying different types of personal computers -describing different types of computers (question and answer) -match computer pictures with their names (can be done in groups in which different pictures are circulated to different groups)	

LESSON EVALUATION:

Evaluation should show the strengths, weaknesses of the approaches used in delivering the lessons. It also shows the way forward in terms of remedial activities if need be.

UNIT 4

LESSON PLANS

A lesson plan is a detailed daily plan of what you intend to deliver during the lesson. This is to be used in the event of you having drawn a scheme of work rather than a scheme cum plan. (See Detailed Lesson Plan Template)

By the end of this unit, you should be able to:

- draw up a lesson plan
- identify relevant teaching-learning materials/ Media
- identify appropriate teaching methods
- evaluate the lesson delivery

COMPONENTS OF A LESSON PLAN

The lesson plan involves:

- Preparation (objectives, Media)
- Execution
 - introduction
 - lesson development
 - written work
 - conclusion
 - Lesson evaluation

Below is an example of a detailed lesson plan:

DETAILED LESSON PLAN

Date:	22 February 2017
Grade	3
Time:	11.30 -12.00
Learning Area	ICT
Topic/Content:	Communication and Networks
Sub-Topic:	Types of Computer Networks
S.O.M:	ICT Textbook
	Teacher's resource book
	Learner's text books
Suggested Media	ICT tools, Charts, Pictures, Text books
Number of students	40

Assumed knowledge Learners know of social networks such as WhatsApp**Lesson Objectives**

- identify types of computer networks
- describe types of computer networks
- discuss benefits of computer networks

STAGE	UNIT CONTENT	SUGGESTED LEARNING ACTIVITIES AND NOTES	SUGGESTED LEARNING RESOURCES
Introduction	Social networks	Teacher introduces lesson by discussion with learners on the benefits of social networks such as Facebook and WhatsApp Class discussion on benefits of Social Networks	<ul style="list-style-type: none"> ● ICT Tools ● Video of Social Networks ● Charts ● Books
Step 1	Characteristics of different types computer networks	Teacher discusses with learners, the characteristics of different computer networks Learners group computer networks according to given characteristics	<ul style="list-style-type: none"> ● ICT tools ● Computer e-book Network
Step 2	Types of computer networks	Learners identify types of computer networks seen in the video	<ul style="list-style-type: none"> ● ICT tools ● Video on types of computer networks
Step 3	Benefits of computer networks	Teacher issues questions to groups on benefits of computer networks Answering questions in groups Reporting back to the class.	<ul style="list-style-type: none"> ● work cards ● e-books
Step 4	Benefits and characteristics of computer networks	Learners answer and questions on characteristics of different types of computer networks and benefits of computer networks	<ul style="list-style-type: none"> ● ICT Tools ● e-books

LESSON EVALUATION:

Strength:.....
.....
.....

Weaknesses:.....
.....
.....

Way Forward
.....
.....

UNIT 5

RECORD KEEPING

INTRODUCTION

Records are critical documents about the teaching – learning process, which you must keep as a teacher

They include:

- Syllabuses (National and School)
- Learners' details
- Examination documents
- Mark lists
- Inventory

OBJECTIVES

By the end of this unit, you should be able to:

- identify the various records you are expected to keep
- prepare accurate records
- Interpret information from records to promote learning
- Maintain and keep records safely
- Appreciate the need to update records regularly

RECORDS TO BE KEPT

- Official syllabuses
- School syllabuses
- Records of staff details
- Records of learner details
- Supervision records
- Files, circulars, handouts, past exam papers
- Minutes of meetings
- Inventory of resource materials
- Stock control registers
- Learner Profiles

- Attendance Register
- Progress Records

All these records are very important and you should constantly administer and upgrade them. They should be readily available for supervision.

PART B

CURRICULUM DELIVERY

INTRODUCTION

The ICT syllabus is one of nine learning areas at Junior level as noted in the reviewed Curriculum Framework. It provides a broad perspective on the basic knowledge and practical skills on how to use and apply a variety of technologies in everyday life. The syllabus intends to equip learners with the general understanding of how information systems are designed to suit particular applications and how such systems work. The ICT syllabus is intended to be infused within other subjects in the school curriculum.

Thus for the effective curriculum delivery of this learning area, learner centred learning methods and activities are encouraged. The use of Instructional teaching learning aids will create virtual realities and thus help the learners to learn fast and capture their interest

OBJECTIVES

By the end of this unit, you should be able to:

- select appropriate teaching methods for your lessons
- design meaningful and effective instructional material
- use a variety of learner-centred approaches
- plan and organize educational tours
- help pupils carry-out projects or experiments
- make good quality aids from available resources (Types: charts, chalkboard, whiteboard, computers, slides, films, videos, flannel graph, textbooks)

CONTENT

This refers to the Subject matter, Topics, Key concepts or Skills to be covered in a learning area. Topics are the main posts or pillars of content for the levels given in an itemised form and are core to the Learning area.

METHODOLOGIES

As a teacher it is important for you to use problem solving and learner-centred approaches. You are the facilitator and the learner is the doer. You should select appropriate teaching methods for your lessons. They should be varied and motivating. The following methods are suggested for you and you should select one or several depending on:

- The subject matter
- Instructional objectives
- The learner
- Your personality
- Learner's level of development (cognitive, affective and psychomotor)

- Content to be covered
- The time
- Instructional materials
- The environment
- Competencies to be developed

It is advisable that the learner be exposed to more than one method in a lesson. Teaching methods can be grouped under three main categories:

- a) Cognitive development methods
- b) Affective development methods
- c) Psychomotor development methods

COGNITIVE DEVELOPMENT METHODS

These are mainly deductive

- Discussion Method
- Questioning/Socratic Method
- Team Teaching Method
- Talk Show/Recitation Method
- Field Trip/Educational tours Method
- Futures wheel
- Group work

AFFECTIVE DEVELOPMENT METHODS

- Modelling Method
- Simulation Method
- Dramatic Method
- Simulation Games
- Role-Playing Method
- Gallery walk
- Observation
- Lecture

PSYCHOMOTOR DEVELOPMENT METHODS

These are more learner activity based and heuristic

- Inquiry Method
- Interactive e-learning

- Discovery Method
- Process Approach Method
- Demonstration Method
- Laboratory/Experimentation Method
- Programmed Learning Method
- Dalton Plan/Assignment Method
- Project Method, case studies, research
- Microteaching Method
- Games
- Mastery Learning
- Song and dance
- Your subject matter should determine the most suitable teaching method/methods to use.
- The instructional objectives to be achieved by the end of the lesson also determine the choice of teaching methods.
- You must be very familiar with the teaching methods you want to use and be convinced they are the most appropriate for that lesson.
- You must consider the age, interest, level of development of the learners and ensure that all learners will benefit from the method you have chosen.
- You must consider time in relation to the methods chosen.
- You should consider the environment and the size of the class in settling for methods to employ.

TEACHING-LEARNING MATERIALS

These are materials that enhance the teaching- learning process. They assist you the teacher to achieve desired objectives while in learners they help in concretising the concepts. They help learners learn better and faster, motivating them and stimulating interest.

SELECTING APPROPRIATE INSTRUCTIONAL AIDS

When selecting learning media, you have to consider the following;

- Topic
- Level of learners
- Available resources
- Environment
- Number of learners

These teaching / learning media should be of good quality and user friendly considering the available resources in the school. Examples of teaching-learning aids appropriate in ICT are:

- charts
- job cards
- ICT tools
- textbooks
- newspapers
- magazines
- mobiles

Instructional media should be used effectively. They must serve the purpose they are meant for rather than be mere window dressing. You should design your media with the topic in mind. Charts and cards must be clearly written, with visible colours and correct size of script for the level of learners. Electronic equipment should be checked before the lesson so that it is in good working order. If using complicated technical media, make sure you practice beforehand so that you do not embarrass yourself in front of the class.

ASSESSMENT AND EVALUATION

This is the measuring of the success of teaching in terms of teacher and learner performance. It provides you with feedback on the acquisition of knowledge, skills and attitudes by learners.

Evaluation Methods

- tests and exercises
- examinations
- homework

The syllabus scheme of assessment is grounded on the principle of inclusivity. Arrangements, accommodations and modifications must be visible in both continuous and summative assessment to enable candidates with special needs to also access assessments.

ASSESSMENT OBJECTIVES

By the end of the ICT studies course Junior school level, learners are expected to:

Knowledge and Understanding

- identify ICT tools in the environment
- recognise information in a variety of forms
- communicate using ICT tools
- incorporate ICT into other subjects
- present information in a variety of forms
- archive cultural information using ICT
- recognize professionals in ICT

Problem solving

- create a computer project from a given problem statement
- give commands to control a device using ICT
- present information in a variety of forms
- design data flow diagrams

Practical Skills

- select and apply appropriate techniques and principles to develop presentations
- design and develop solutions to given problem
- create a computer project from a given problem statement
- diagnose faults and repair ICT tools
- updating and using anti – virus software

SCHEME OF ASSESSMENT

ICT will be assessed through continuous and summative assessment

Continuous Assessment (55%)

Profiling, tests, and practical assignments are administered and collated from Infant through to Grade 7. Projects through research and designs start at Grade 5. All the marks contribute to the final mark.

Summative Assessment (45%)

The summative assessment comprises two components as follows:

Paper 1 (20%)

Paper 2 (25%)

NOTE: A profile system has to be developed for every child to capture those attributes that cannot be measured such as the soft skills.

CLASS MANAGEMENT

This is the process of planning, organizing, and leading and controlling class activities to facilitate learning.

CREATING AN EFFECTIVE LEARNING ENVIRONMENT

This covers classroom organization from:

- Physical environment:

-Clean, tidy and airy classroom and furniture arranged carefully for safety and teaching aids that are visible to learners.

- Emotional environment:

-You need to be firm yet warm and pleasant. As a teacher you must set the right tone, telling your learners what behaviour you expect from them.

- Grouping:

-You may group your learners according to needs, abilities, and problems but never by sex. Encourage them to share ideas in groups.

- Class control and discipline:

-You must be knowledgeable of the school policy on discipline. A teacher must always be firm but fair. Good behaviour must be acknowledged and punishments must be corrective not cruel. You should create an atmosphere of trust and honesty in your class and aim for intrinsic discipline.

- Motivation:

-As a teacher you must make your learners feel important through recognizing and rewarding achievements, as encouraging those who are lagging behind. Calling pupils by their names creates good rapport with your class. You should also be a role model to your learners by the way you handle yourself.

- Supervision:

-You must check learners' work in order to guide and correct them in all areas from group discussions, games, field trips and even homework.

UNIT 6

SYLLABUS TOPICS

Brunner's Spiral approach will be adopted where the same topics are taught at every level Form One to Four but gaining in breadth and depth as one goes up the ladder. As reflected in the Scope and Sequence Chart, the same topics are covered at each level but the difference is in breadth and content coverage. The level of complexity increases as the learner progresses from one level to the other.

The following topics are to be covered from Grade 3 – 7

5.1 ICT Tools

5.2 Creating and Publishing

5.3 Computer Software

5.4 Safety and Security

5.5 The World Wide Web and Online Collaboration

5.6 ICT Enterprise

5.7 Programming

5.8 Communication and Networks

SCOPE AND SEQUENCE CHART

TOPIC	GRADE 3	GR 4	GR5	GR6	GR7
ICT TOOLS	<ul style="list-style-type: none"> Types of Computers 	<ul style="list-style-type: none"> Computer peripherals fixing 	<ul style="list-style-type: none"> Fault diagnosis and Software Maintenance 	<ul style="list-style-type: none"> Hardware And 	<ul style="list-style-type: none"> Faults in ICT Tools
CREATING AND PUBLISHING	<ul style="list-style-type: none"> Charts Bar Graphs Pictograms Images Database Principles 	<ul style="list-style-type: none"> Presentations Slide show of drawings Databases 	<ul style="list-style-type: none"> Animation Databases 	<ul style="list-style-type: none"> Database forms and reports 	<ul style="list-style-type: none"> Database queries
COMPUTER SOFTWARE	<ul style="list-style-type: none"> Uses of software Text Input File management Multimedia 	<ul style="list-style-type: none"> Desktop Publishing File management Multimedia 	<ul style="list-style-type: none"> Sending and receiving information (VoIP) Multimedia 	<ul style="list-style-type: none"> Spreadsheets Installation of software Data storage Multimedia 	<ul style="list-style-type: none"> Multimedia
SAFETY AND SECURITY	<ul style="list-style-type: none"> Passwords 	<ul style="list-style-type: none"> Computer Viruses 	<ul style="list-style-type: none"> Cyber Wellness 	<ul style="list-style-type: none"> Hacking 	<ul style="list-style-type: none"> Firewalls Antivirus Data Legislation

<p>THE WORLD WIDE WEB AND ONLINE COLLABORATION</p>	<ul style="list-style-type: none"> • Web page • Search Engines • Information Presentation • e-Messages 	<ul style="list-style-type: none"> • Web page • Search Tools • Search engines • Information Presentation • e-Messages 	<ul style="list-style-type: none"> • Surfing the Internet • E-mail 	<ul style="list-style-type: none"> • Web Page • Surfing the Internet • Mailbox • Web design 	<ul style="list-style-type: none"> • Surfing the Internet • Web design
<p>ICT ENTERPRISE</p>	<ul style="list-style-type: none"> • Data capture clerk • Sound technician 	<ul style="list-style-type: none"> • Computer Operator • Copyist 	<ul style="list-style-type: none"> • Digital Photographer 	<ul style="list-style-type: none"> • Web Developer 	<ul style="list-style-type: none"> • ICT Careers • Web Designing Technicians • Software Technicians • Network Technicians

