REPUBLIC OF GHANA

MINISTRY OF EDUCATION SCIENCE AND SPORTS



TEACHING SYLLABUS FOR INFORMATION AND COMMUNICATIONS TECHNOLOGY

(PRIMARY 1 - 6)

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RATIONALE FOR TEACHING AND LEARNING ICT

ICT has become an important medium for communication and work in a variety of areas. Knowledge of ICT has therefore become a prerequisite for learning in schools in the current world. This syllabus is designed to predispose primary school pupils to basic skills in Information and Communications Technology (ICT) so as build the foundation for further learning in the subject as they move into second cycle education and beyond.

The syllabus covers basic topics in ICT, and offers hands-on activities and keyboarding skills to build the required ICT foundation.

GENERAL AIMS

The syllabus is designed to help pupils to:

- 1. acquire basic ICT literacy
- communicate effectively using ICT tools
- 3. develop interest and acquire skills in the use of the internet
- 4. develop basic ethics in using ICT tools
- 5. acquire basic mouse and keyboarding skills

SCOPE OF CONTENT

The content of this course has been designed to offer basic knowledge and skills to pupils to give them the opportunity for further study of ICT. The course is based on the following themes: Introduction to ICT, Mouse and Keyboarding skills, Document Creation, Drawing with Computer Drawing tools and Basic parts of the computer. These themes are to be covered in six years of Primary School Education.

PRE-REQUISITE SKILLS

Pupils of this course might have acquired good reading, writing, responsible behaviour in following rules, regulations and performing tasks according to procedure.

ORGANISATION OF THE SYLLABUS

This syllabus has been structured to cover the six years of Primary School. Each year's work has been divided into three terms. Each term has sections and a number of units. The structure is presented in the table below.

ORGANIZATION AND STRUCTURE OF THE SYLLABUS

PRIMARY ONE

SECTION ONE : INTRODUCTION TO INFORMATION TOOLS	SECTION TWO: INTRODUCTION TO COMMUNICATIONS TOOLS	SECTION THREE: INTRODUCTION TO TECHNOLOGY TOOLS
 UNIT 1 SOURCES OF INFORMATION Definition of Information Sources of Information Tools for sending and receiving Information UNIT 2 MOUSE CLICKING UNIT 3 HOME ROW KEYS OF THE KEYBOARD Mouse Skills Selection of icons on the desktop Single left click Keyboarding Skills Typing letters of the alphabet using Notepad Using numeric keys to type numbers using Notepad 	UNIT 1 TOOLS FOR COMMUNICATION	UNIT 1 TECHNOLOGY TOOLS

PRIMARY TWO

SECTION ONE: MOUSE AND KEYBOARDING SKILLS (1)	SECTION TWO: MOUSE AND KEYBOARDING SKILLS (2)	SECTION THREE: MOUSE AND KEYBOARDING SKILLS (3)
UNIT 1 DOUBLE CLICKING OF MOUSE • Mouse Skills Double clicking of mouse Opening icons on the desktop	UNIT 1 DRAGGING OF MOUSE • Dragging the mouse pointer to draw and colour shapes using the Paint Application	UNIT 1 USING DRAWINGS AND IMAGES TO PRESENT INFORMATION • Using drawings and images to record and present information
UNIT 2 THE USE OF SPACEBAR AND BACKSPACE KEYS • Keyboarding skills Using spacebar and backspace keys to type words using home and qwerty keys	UNIT 2 BOTTOM ROW KEYS OF THE KEYBOARD • Typing of words using the home, bottom and qwerty rows keys. UNIT 3 INTRODUCTION TO GAMES APPLICATION	UNIT 2 TYPING SHORT PASSAGES • Typing – reinforcement of spacebar and backspace using Notepad UNIT 3
UNIT 3 INTRODUCTION TO GAMES APPLICATION • Using Games Application to reinforce mouse skills	Using Games Application to reinforce mouse skills	INTRODUCTION TO GAMES APPLICATION • Using Games Application to reinforce mouse skills

PRIMARY THREE

SECTION ONE: INTRODUCTION TO ICT TOOLS	SECTION TWO: INTRODUCTION TO ICT TOOLS	SECTION THREE: INTRODUCTION TO WIINDOW MANAGEMENT
UNIT 1 USES OF ICT TOOLS IN EVERYDAY LIFE • Uses of ICT tools in everyday life	UNIT 1 MOUSE SKILLS REVIEW Using the mouse to locate: Paint Application Notepad Application Start menu	UNIT 1 BASIC WINDOW MANAGEMENT • Maximizing and restoring window using the maximize button in the control box • Typing short sentences using Text Editor or Notepad Application
UNIT 2 DOUBLE CLICKING THE MOUSE (2) • Double clicking the mouse UNIT 3 THE USE OF GAMES APPLICATION • Using Games Application to reinforce mouse skills	UNIT 2 USE OF LOWER AND UPPER CASE CHARACTERS IN TYPING • Combining of upper and lower case characters in typing UNIT 3 THE USE OF GAMES APPLICATION • Using Games Application to reinforce mouse skills	 Minimizing land closing Text Editor or Notepad Application window using the minimize and close button in the control box UNIT 2 DRAWING AND COLOURING IMAGES WITH PAINT APPLICATION TOOLS Drawing shapes and objects using the Pencil tool of the Paint Application
		Colour shapes and objects using the Fill With Colour tool of the Paint Application tool

PRIMARY FOUR

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SECTION ONE: CARE OF ICT TOOLS AND INTRODUCTION TO TYPING SKILLS	SECTION TWO: OPENING OF APPLICATION AND TYPING SKILLS	SECTION THREE: INTRODUCTION TO BASIC PARTS OF THE COMPUTER HARDWARE
UNIT 1 GENERAL CARE OF ICT TOOLS AND ENVIRONMENT • Taking care of ICT tools • Maintaining a clean environment.	UNIT 1 OPENING APPLICATION USING START MENU Turning on the computer Opening Applications using the Start Menu button	UNIT 1 BASIC PARTS OF THE COMPUTER HARDWARE • The basic parts of the computer hardware: Monitor, System Unit, Keyboard, Mouse • Functions of the basic parts of the computer hardware
 UNIT 2 DRAG AND DROP Using mouse to click, hold, drag and drop Using graphic program to draw. UNIT 3 TYPING THE NUMBER ROW Typing of numbers using the number row 	UNIT 2 FAIR COPYING • Typing short passages using Text Editor or WordPad	UNIT 2 SUSTAINED COPYING Using the appropriate keys of the keyboard to type Typing a longer passage using typing skills acquired.

PRIMARY FIVE

SECTION ONE: CREATING AND SAVING DOCUMENT	SECTION TWO: TYPING SPEED DEVELOPMENT AND RE-NAMING OF FILE	SECTION THREE: CREATION OF FOLDERS
UNIT 1 INTRODUCTION TO THE DESKTOP SCREEN • Features on the desktop screen • Importance of the features on the desktop screen UNIT 2 CREATING AND SAVING NEW DOCUMENT • Opening and typing of passages using Text Editor or WordPad • Saving documents on the Desktop using the 'Save As' command UNIT 3 SAVING FILE IN PAINT APPLICATION • Opening Paint Application • Drawing objects using Paint Application tools: circle, ellipse, square • Saving a file with a name on the desktop UNIT FOUR BASIC TYPING SKILLS DEVELOPMENT • Practising typing using software drills	UNIT 1 TYPING SPEED DEVELOPMENT (15 – 20 WORD PER MINUTE) • Improving speed in typing using a typing software • Typing with speed i.e. 5 – 10 words per minute UNIT 2 RE-NAMING FILE • Opening an existing file on the desktop • Typing additional information on the existing file • Re-naming of file using the 'Save as' command in the File menu	UNIT 1 CREATING FOLDERS • Creating and naming folders on the desktop • Opening folders applying skills in double-clicking UNIT 2 TYPING SPEED DEVELOPMENT • Improving speed in typing using typing software • Typing with speed 20 – 25 WPM

PRIMARY SIX

SECTION ONE: BASIC TEXT FORMATTING	SECTION TWO: INTRODUCTION TO INTERNET AND TYPING SPEED DEVELOPMENT	SECTION THREE: TYPING, MOUSE SKILLS AND PRINTING OF DOCUMENT
UNIT 1 CHANGING FONT, FONT SIZE, AND STYLE • Changing font size using the format menu in Text Editor or WordPad • Changing font using the format menu UNIT 2 TYPING SPEED DEVELOPMENT (25 – 30 WORDS PER MINUTE) • Improving speed in typing using a typing software. • Typing with speed 25 – 30 words per minute	UNIT 1 THE INTERNET Concept of Internet The importance of Internet Exploring a website for information UNIT 2 TYPING SPEED DEVELOPMENT (30 – 35 WORDS PER MINUTE) Improving speed in typing using a typing software. Typing with speed 30 – 35 word per minute	UNIT 1 TYPING SPEED DEVELOPMENT Improving speed using a typing software Typing with speed. 30 -35 words per minute UNIT 2 THE USE OF THE RIGHT MOUSE CLICK Using the right mouse click to rename files and folders on the desktop UNIT 3 PRINTING OF DOCUMENT Printing of document using the print icon

TIME ALLOCATION

ICT is allocated 4 periods of 35 minutes each period per week at both lower and upper primary levels. It is recommended that the four periods be put into two double periods for the week's work.

Apart from the time allocation for the subject itself, schools are advised to provide the following recommended time for the subjects/items listed below:

	Physical Education	4
	Library Work (Reading and Research)	3
\triangleright	SBA Project	2
\triangleright	Worship	2

The number of periods for Library Work is reduced to 2 at the upper primary.

SUGGESTION FOR TEACHING THE SYLLABUS

Bear in mind that your class may consist of one or few pupils with different physical problems and mental abilities. Some of the children may have high mental ability, while others may be slow learners; some may be dyslexic and not able to read as the others in the class. All these are special needs children who need special attention. Ensure that you give equal attention to all pupils in your class to provide each of them equal opportunities for learning. Pupils with disabilities may have hidden talents that can only come to light if you provide them the necessary encouragement and support in class.

NOTE: For safety reasons the teacher should switch on the computers for pupils from Primary One to Primary Three.

The six years work has been divided into sections. Each term has sections with their general objective(s).

General Objectives

General Objectives have been listed at the beginning of each section of the syllabus. The general objectives flow from the general aims for teaching English listed on page 4 of this syllabus. The general objectives form the basis for the selection and organization of the unit topics. Read the general objectives very carefully before you start teaching. After teaching all the units, go back and read the general aims and general objectives again to be sure you have covered both of them adequately in the course of your teaching.

To make it user friendly, the syllabus has been structured into five columns. Column one is the Unit topic, Column two consists of the Specific Objectives of each unit, Column three provides the content to be covered, Column four provides Teaching Learning Activities for

the achievement of the Specific Objectives, while Column five provides some exercises that will be useful for assessing the knowledge and skills gained in the lesson.

Column 1 - Units

This column presents the sub topics of the major topic(s) of the section. The unit topics have been arranged sequentially to enhance skill building. However if a teacher finds at some point that teaching and learning in his/her class will be more effective he/she can skip the unit to another unit and come back later to the unit.

Column 2 Specific Objectives

Column 2 shows the Specific Objectives for each unit. The specific objectives begin with numbers such as 1.3.5 or 2.2.1. These numbers are referred to as "Syllabus Reference Numbers". The first digit in the syllabus reference number refers to the section; the second digit refers to the unit, while the third digit refers to the rank order of the specific objective. For instance, 1.3.5 means: Section 1, Unit 3 (of Section 1) and Specific Objective 5. In other words, 1.3.5 refers to Specific Objective 5 of Unit 3 of Section 1. Similarly, the syllabus reference number 2.2.1 simply means Specific Objective number 1 of Unit 2 of Section 2. Using syllabus reference numbers provides an easy way for communication among teachers and other educators. It further provides an easy way for selecting objectives for test construction. Let's say for instance, that Unit 2 of Section 2 has five specific objectives: 2.2.1 - 2.2.5. A teacher may want to base his/her test items/questions on objectives 2.2.3 and 2.2.4 and not use the other three objectives. In this way, a teacher would sample the objectives within units and within sections to be able to develop a test that accurately reflects the importance of the various skills taught in class.

You will note also that specific objectives have been stated in terms of the pupil i.e., what the pupils will be able to do after instruction and learning in the unit. Each specific objective hence starts with the following, "The pupils will be able to." This in effect, means that you have to address the learning problems of each individual pupil. It means individualizing your instruction as much as possible such that the majority of pupils will be able to master the objectives of each unit of the syllabus.

Column 3 - Content

The "content" column of the syllabus presents a selected body of information, skills and competencies that you will need in teaching the particular unit.

Column 4 - Teaching and Learning Activities (T/LA)

T/LA activities that will ensure maximum pupils participation in the lessons are presented in Column 4. Try to de-emphasize theory and emphasize the practicals. You are encouraged to re-order the suggested teaching and learning activities and also add to them where necessary in order to achieve optimum pupils learning. As we have implied already, the major purpose of teaching and learning is to make pupils acquire basic literacy skills and integrate their knowledge and skills to enhance learning. The teacher should therefore be a facilitator by guiding pupils to do more practical work.

Column 5 - Evaluation

Suggestions and exercises for evaluating the lessons of each unit are indicated in Column 5. Evaluation exercises can be in the form of oral questions, quizzes, class assignments, project work etc. Try to ask questions and set tasks and assignments that will challenge your pupils to apply their knowledge to problems set in class, or general problems of interest. The suggested evaluation tasks are not exhaustive. You are encouraged to develop other creative evaluation tasks to ensure that pupils have mastered the skills implied in the specific objectives of each unit. For evaluation during class lessons, determine the mastery level you want pupils to achieve in their answers and responses. If for instance, you take 80% as the mastery level, ensure that each pupil's answer to questions asked in class achieve this level of mastery.

DEFINITION OF PROFILE DIMENSIONS

The concept of profile dimensions was made central to the syllabuses developed from 1998 onwards. A 'dimension' is a psychological unit for describing a particular learning behaviour. More than one dimension constitutes a profile of dimensions. A specific objective may be stated with an action verb as follows: The pupil will be able to <u>describe</u>..... etc. Being able to "describe" something after the instruction has been completed means that the pupil has acquired "knowledge". Being able to explain, summarize, give examples, etc. means that the pupil has understood the lesson taught.

Similarly, being able to develop, plan, solve problems etc. means that the pupil can "apply" the knowledge acquired in some new context. Each of the specific objectives in this syllabus contains an "action verb" that describes the behaviour the pupil will be able to demonstrate after the instruction. "Knowledge", "Application", etc. are dimensions that should be the prime focus of teaching and learning in schools.

ICT is a practical subject and the learning required is best achieved by application of the skills learnt. The profile dimensions required in this subject are as follows:

Knowledge and understanding 70 Application of knowledge 30

At the primary school level, much of the work will involve acquiring ICT knowledge, understanding that knowledge and putting it into practice. Some amount of problems that require application of skills should also be posed as pupils go through the learning sequence.

Form of Assessment

The assessment of ICT should be based on more practical work than theory. In developing assessment procedures, try to select specific objectives in such a way that you will be able to assess a representative sample of the syllabus objectives. Each specific objective in the syllabus is considered a criterion to be achieved by the pupils. The assessment procedure you use i.e. class tests, homework, projects etc. must be developed in such a way that it will consist of a sample of the important objectives taught over a period.

The assessment will be based on one paper scored over 100%. The assessment should be a practical test based essentially on knowledge and understanding. Pupils will be expected to solve problems using the following; Keyboarding Skills (Speed), Mouse Skills (Drawing with Computer Drawing tools), Document Creation, and Basic parts of the computer hardware.

GUIDELINES FOR SCHOOL BASED ASSESSMENT

A new School Based Assessment system (SBA), formally referred to as Continuous Assessment, will be introduced into the school system from September 2008. SBA is a very effective system for teaching and learning if carried out properly. The new SBA system is designed to provide schools with an internal assessment system that will help schools to achieve the following purposes:

- Standardize the practice of internal school-based assessment in all schools in the country
- Provide reduced assessment tasks for each of the primary school subjects
- Provide teachers with guidelines for constructing assessment items/questions and other assessment tasks
- Introduce standards of achievement in each subject and in each class of the school system
- Provide guidance in marking and grading of test items/questions and other assessment tasks
- Introduce a system of moderation that will ensure accuracy and reliability of teachers' marks
- Provide teachers with advice on how to conduct remedial instruction on difficult areas of the syllabus to improve pupil performance

The new SBA system will consist of 12 assessments a year instead of the 33 assessments in the previous continuous assessment system. This will mean a reduction by 64% of the work load compared to the previous continuous assessment system. The 12 assessments are labeled as Task 1, Task 2, Task 3 and Task 4. Task 1-4 will be administered in Term 1; Tasks 5-8 will be administered in Term 2, and Tasks 9-12 administered in Term 3. Task 1 will be administered as an individual test coming at the end of the first month of the term. The equivalent of Task 1 will be Task 5 and Task 9 to the administered in Term 2 and Term 3 respectively. Task 2 will be administered as a Group Exercise and will consist of two or three instructional objectives that the teacher considers difficult to teach and learn. The selected objectives could also be those objectives considered very important and which therefore need pupils to put in more practice. Task 2 will be administered at the end of the second month in the term. Task 3 will also be administered as individual test under the supervision of the class teacher at the end of the 11th or 12 week of the term.

Task 4 (and also Task 8 and Task 12) will be a project to be undertaken throughout the term and submitted at the end of the term. Schools will be supplied with 9 project topics divided into three topics for each term. A pupil is expected to select one project topic for each term. Projects for the second term will be undertaken by teams of pupils as Group Projects. Projects are intended to encourage pupils to apply knowledge and skills acquired in the term to write an analytic or investigative paper, write a poem 9 (as may be required in English and Ghanaian Languages), use science and mathematics to solve a problem or produce a physical three-dimensional product as may be required in Creative Arts and in Natural Science.

Apart from the SBA, teachers are expected to use class exercises and home work as processes for continually evaluating pupils' class performance, and as a means for encouraging improvements in learning performance.

The marks derived from projects, the end of month tests and home work specifically designed for the SBA should together constitute the School Based Assessment component marked out of 60 per cent. The emphasis is to improve pupils' learning by encouraging them to do more practice in ICT. The SBA will hence consist of:

- End-of-month tests
- ➤ Home work assignments (specially designed for SBA)
- Project

Other regulations for the conduct of SBA will reach schools from GES.

Combining SBA marks and End-of-Term Examination Marks

The new SBA system is important for raising pupils' school performance. For this reason, the 60 marks for the SBA will be scaled to 50. The total marks for the end of term test will also be scaled to 50 before adding the SBA marks and end-of-term examination marks to determine pupils' end of term results. The SBA and the end-of-term test marks will hence be combined in equal proportions of 50:50. The equal proportions will affect only assessment in the school system.

GRADING PROCEDURE

In marking your class examination scripts, it is very important that you develop a marking scheme. A marking scheme, as you may be aware, consists of the points for the best answer you expect for each essay question or structured question, and the mark(s) allocated for each point raised by the pupil as well as the total marks for the question. For instance, if a question carries 10 marks and you expect 4 points in the best answer, you could allocate 2 marks (or part of it, depending upon the quality of the point raised by the pupil) to each point raised, totalling 8 marks, and then give the remaining 2 marks or part of it, for organization of answer. For objective test papers, you may develop an answer key to speed up the marking.

To improve assessment and grading and also introduce uniformity in schools, it is recommended that schools adopt the following grade boundaries for assigning grades:

Grade A: 80 - 100% - Excellent
Grade B: 70 - 79% - Very Good
Grade C: 60 - 69% - Good
Grade D: 45 - 59% - Credit (Satis

Grade D: 45 - 59% - Credit (Satisfactory)

Grade E: 35 - 44% - Pass Grade F: $\leq 34\%$ - Fail

The grading system presented above shows the letter grade system and equivalent grade boundaries. In assigning grades to pupils' test results, or any form of evaluation, you may apply the above grade boundaries and the descriptors. The descriptors (Excellent, Very Good etc) indicate the meaning of each grade. For instance, the grade boundary for "Excellent" consists of scores between 80 - 89. Writing "80%" for instance, without writing the meaning of the grade, or the descriptor for the grade i.e. "Excellent", does not provide the pupil with enough information to evaluate

his/her performance in the assessment. You therefore have to write the meaning of the grade alongside the score you write. Apart from the score and the grade descriptor, it will be important also to write a short diagnosis of the points the pupil should consider in order to do better in future tests etc. Comments such as the following may also be added to the grades:

Keep it up
Has improved
Could do better
Hardworking
Not serious in class
More room for improvement, etc.

Note that the grade boundaries above are also referred to as grade cut-off scores. When you adopt a fixed cut-off score grading system as in this example, you are using the criterion-referenced grading system. By this system a pupil must make a specified score to earn the appropriate grade. This system of grading challenges pupils to study harder to earn better grades. It is hence very useful for achievement testing and grading.

PRIMARY ONE

SECTION ONE

INTRODUCTION TO INFORMATION TOOLS

- 1. understand information
- 2. recognize the sources of information tools

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 SOURCES OF INFORMATION	The pupil will be able to: 1.1.1 explain Information	Definition of Information? • Something told e.g. news, message, story	Ask a pupil to tell the class how she/he spent the weekend. Teacher explains that information is based on the above activity. Let pupils understand that ideas, thoughts and messages are referred to as information. Pupils in groups discuss a given topic and share the information with the rest of the class.	Exercise: Pupils to describe what the people in the picture are doing.
	1.1.2 identify sources of Information	Sources of information: people news letters films teaching announcements bulletins magazines news papers books music etc.	Pupils brainstorm to come up with the various sources of information. Display real or pictures of various sources of information for pupils to identify and discuss.	Assignment: Pupils to find out more sources of information and report in class

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
	The pupil will be able to: 1.1.3 name tools for sending and receiving information	Tools for sending and receiving information : • Radio – news, announcements etc	Display real objects or pictures of tools of Information. Let pupils name the things they see in the	Home work: Pupils to draw and name any four tools of
		 TV- news, announcement, films, drama, events from other countries, etc Calculator – information on calculations Telephone (including mobile phones) - messages Camera- sending pictures Microphone – talking to large audience Talking drums – sending messages Computer – information, sending and receiving messages 	Discuss the uses of the various tools as in content. Let pupils handle and operate some of the tools.	information and report to class.
UNIT 2 MOUSE CLICKING UNIT 3	1.2.1 single click the mouse	Mouse skills: Mouse clicking	Let pupils practise how to hold the mouse correctly. Guide pupils to use the mouse pointer to identify icons on the desktop. Assist pupils to practise how to click the mouse.	
HOME ROW KEYS OF THE KEYBOARD	identify the home row keys on the keyboard 1.3.2 type letters of the home row keys using Notepad	Keyboarding skills: Home row keys on the keyboard Typing letters of the home row keys using Notepad	Assist pupils to identify the home row keys on the keyboard. Guide pupils to type the home row keys using Notepad.	Home work: Pupils practise typing on the home row keys using NotePad

SECTION TWO

INTRODUCTION TO COMMUNICATIONS TOOLS

- General Objective: The pupil will:identify communication toolsuse communication tool such as mouse and keyboard

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 TOOLS FOR COMMUNICATION	The pupil will be able to: 2.1.1 explain communication	Definition of Communication It Is a way people exchange ideas, information etc.	Review lesson on information tools and sources through questions and answers. Ask two pupils to chat on a given topic (Teacher should make sure that both are involved in the dialogue) Let pupils understand that when they talk to friends, parents, teachers and others and they also talk to them, they are communicating. So giving information and receiving response is communication.	Assignment: Pupils to draw people communicating using the tools.
	2.1.2 identify communication tools and their uses	Tools for communication:	Ask pupils to tell how they can talk to their parents in their homes whilst in school e.g by letter or telephone Let pupils mention other tools that can be used to communicate. Display real objects or pictures of tools for communication for pupils to identify and discuss their uses. NOTE: Pictures should include people using the tools	

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 2 FORMS OF COMMUNICATON	The pupil will be able to: 2.2.1 Identify forms of communication	Forms of communication: • Verbal e.g. conversation, teaching • Written e.g. letters, class exercises, homework - posters - announcements, directions - signs - road signs, traffic lights, sign board • body language - smiling, weeping, nodding,	Discuss the forms of communication as in content. Pupils use body language to communicate e.g. nodding of head, winking of the eye, shrugging shoulders etc. Teacher takes pupils out on a visit to identify road signs, posters etc Pupils in groups draw and label road	
UNIT 3 DRAGGING OF MOUSE (1)	2.3.1 drag items using the mouse	Mouse skills: Using the mouse to drag items	Teacher to open Paint Application for pupils to draw any object of their choice to improve upon mouse skills. Guide pupils to use the mouse to	Class Exercise: Pupils to draw objects using the Paint Application.
UNT 4 TOP ROW KEYS OF THE KEYBOARD	2.4.1 type letters of the qwerty row using Notepad	Keyboarding skills: Typing letters of the 'qwerty' row using Notepad	draw some letters of the alphabet eg. A - D Guide pupils to type letters of the 'qwerty' row using Notepad.	Pupils to type two – three letter words

SECTION THREE

INTRODUCTION TO TECHNOLOGY TOOLS

- recognise technology tools and their uses
 use technology tool such as mouse and keyboard

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 TECHNOLOGY TOOLS	The pupil will be able to: 3.1.1 explain Technology	Definition of Technology e.g Tools and equipment that help to make work easy. Technology tools:	Review lesson on information and communication through questions and answers. Show real or pictures of technology tools for pupils to identify and describe their uses.	
	3.1.2 identity and state the uses of Technology tools	Uses of Technology tools e.g. telephone for conversation radio for news etc computer for typing letters, communicate receiving and sending information thermometer for temperature weighing scale for weighing things etc.	Discuss and demonstrate how technology tools are used in sending and receiving information. Pupils in pairs to improvise and demonstrate how to use the following Technology tools to communicate: Telephone Radio Cassette Recorder Television Field Trip: A visit to a Technology Centre Take pupils out to a Technology Centre e.g. communication centre or community centre to observe how technology tools are used. Pupils to report in class on what they saw.	Group work: Pupils to make improvised technology tools

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 2 DRAGGING OF MOUSE (2)	The pupil will be able to: 3.2.1 drag the mouse pointer to draw shapes.	Mouse skills: Dragging of mouse pointer to drawing shapes e.g. circle, square, triangle	Guide pupils to drag the mouse pointer to draw shapes e.g. circles, squares, triangles	Exercises: Pupils to drag mouse pointer to draw circles, triangles and squares
UNIT 3 HOME AND TOP ROW KEYS	3.3.1 type words using the home and 'qwerty' rows	Keyboarding skills: Typing of words using home and qwerty row	Assist pupils to type names and words using the home and qwerty row e.g. Word, type, the, so, what, you, due, are, etc	Pupils to type words and names using the home and qwerty row

PRIMARY TWO

SECTION ONE

MOUSE AND KEYBOARDING SKILLS (1)

General Objective The pupil will:

1. acquire more skills in the use of the mouse and keyboard

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 DOUBLE CLICKING OF MOUSE	The pupil will be able to: 1.1.1 double click the mouse	Mouse skills: Double-clicking of mouse opening icons on the desktop	Guide pupils to practise double clicking on the desktop. Pupils practise double clicking to open icons on the desktop.	Exercises Pupils practise double clicking on the desktop
UNIT 2 THE USE OF SPACEBAR AND BACKSPACE KEYS	1.2.1 use the spacebar and backspace to type words	Keyboarding skills: Using spacebar and backspace keys to type words using home and qwerty rows.	Let pupils type words leaving space in between using the spacebar. Guide pupils to use the backspace key in typing and explain its uses e.g. - Used for correcting letters wrongly typed - Used to close up spaces in between words	Pupils to type and separate word using the space bar.
UNIT 3 INTRODUCTION TO GAMES APPLICATION	1.3.1 use Games Application to reinforce mouse skills	Using Games Application to reinforce mouse skills	Guide students to open any Games Application involving the use of mouse to play.	Students to use Games Application to practise mouse skills

SECTION TWO

MOUSE AND KEYBOARDING SKILLS (2)

General Objective The pupil will:

1. acquire skills mouse and keyboarding

UNIT		SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
	The p	upil will be able to:			
UNIT 1 DRAGGING OF MOUSE	2.1.1	drag the mouse pointer to draw and colour shapes using the mouse in Paint Application	Mouse skills: Dragging the mouse pointer to draw and colour shapes using the mouse in Paint Application	Assist pupils to select some Paint Application tools to draw and colour shapes using the mouse.	
				NOTE. The focus should be on dragging of the mouse pointer not on the drawing	
UNIT 2					
BOTTOM ROW KEYS OF THE KEYBOARD	2.2.1	type words using the home, bottom and qwerty row	Keyboarding skills: Typing of words using the home, bottom and qwerty row	Guide pupils to type meaningful words using the home, bottom and qwerty row	
				Let pupils practice typing more short sentences to improve upon keyboarding skills	
LINIT 2				NOTE Let pupils use Notepad Application	
UNIT 3					
THE USE OF GAMES APPLICATION	2.3.1	use Games Application to reinforce mouse skills	Using Games Application to reinforce mouse skills	Students to open any Games Application involving the use of mouse to play.	

SECTION THREE

MOUSE AND KEYBOARDING SKILLS (3)

General Objective The pupil will:

1. improve upon mouse and keyboarding skills

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 USING DRAWINGS AND IMAGES TO PRESENT INFORMATION	The pupil will be able to: 3.1.1 use drawings and images to present information	Using drawings and images to record and present information	Guide pupils to use Paint Application to draw images to present information. Pupils to explain in class the	
UNIT 2 TYPING SHORT SENTENCES	3.2.1 type two short sentences using spacebar, backspace in Notepad	Typing – reinforcement of spacebar and backspace using Notepad	information they want to carry through the images drawn. Teacher should assist pupils do more practice in keyboarding.	Pupils to type short sentences using spacebar and backspace using Notepad
UNIT 3 THE USE OF GAMES APPLICATION	3.3.1 use Games Application to reinforce mouse skills	Using Games Application to reinforce mouse skills	Students to open any Games Application involving the use of mouse to play.	

PRIMARY THREE

SECTION ONE

INTRODUCTION TO ICT TOOLS

- be aware of the uses of ICT tools in everyday life
 acquire skill in doubling clicking.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 USES OF ICT TOOLS IN EVERYDAY LIFE UNIT 2	The pupil will be able to: 1.1.1 identify ways in which ICT tools can be used in everyday life	Uses of ICT tools in everyday life: • reproduction of copies of text by duplicating machine e.g. Photocopies, • using networking in banking • digital thermometer for temperature • speedometer for speed, • weighing scale for weighing • calculator for computations Computer for processing, document, for entertainment, music, films etc.	Pupils brainstorm and discuss the uses of ICT tools in everyday life as in content. Use the computer to demonstrate how music, games, movies are played on the computer. Pupils practice playing music and games on the computer.	Assignment: Pupils to find out and report in class more about the uses of computers.
DOUBLE-CLICKING OF THE MOUSE (2) UNIT 3	1.2.1 double click the mouse	Double clicking of the mouse	Guide pupils to practise double clicking on icons on the desktop and let them describe what happens when an icon is double clicked.	
THE USE OF GAMES APPLICATION	1.3.1 use Games Application to reinforce mouse skills	Using Games Application to reinforce mouse skills	Students to open any Games Application involving the use of mouse to play.	

SECTION TWO

MOUSE AND KEYBOARDING SKILLS

General Objective: The pupil will:

1. improve upon mouse and keyboarding skills

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 MOUSE SKILLS REVIEW	The pupil will be able to: 2.1.1 use the mouse to locate and click on the Start menu, Paint and Notepad Applications	Using the mouse to locate Paint Application Notepad Application Start menu	Assist pupils to use the mouse to locate and open Start menu, Paint and Notepad Application.	
UNIT 2 USE OF LOWER AND UPPER CASE CHARACTERS IN TYPING	2.2.1 use upper and lower case characters to type short sentences and phrase	Combining lower and upper case characters in typing	Assist pupils to type short sentences and phrases using lower and upper case characters.	Exercise: Open Notepad and type five short sentences using lower and upper case characters.
UNIT 3 THE USE OF GAMES APPLICATION	2.3.1 use Games Application to reinforce mouse skills	Using Games Application to reinforce mouse skills	Students to open any Games Application involving the use of mouse to play.	

SECTION THREE

INTRODUCTION TO WINDOW MANAGEMENT

- be able to manage windows
 be able to apply colours to drawings

UNIT	S	PECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
	The pu	pil will be able to:			
UNIT 1 BASIC WINDOW MANAGEMENT	3.1.1	maximize and restore Notepad/Text Editor Application window using the maximize and restore buttons in the control box	Maximizing and restoring Notepad/ Text Editor Application window using the maximize and restore buttons in the control box Maximize restore	Assist pupils to open Notepad/Text Editor Application and practise how to maximize and restore the window using the appropriate buttons.	
	3.1.2	type short sentences using Notepad/Text Editor Application	Typing short sentences using Notepad/Text Editor Application	Pupils to type short sentences after restoring the window.	
	3.1.3	minimize and close Notepad Application window using the minimize and close buttons in the control box	Minimizing and closing Notepad Application window using the minimize and close buttons in the control box X	Pupils to minimize and close the window after typing.	
UNIT 2			Minimize close		
DRAWING AND COLOURING IMAGES WITH PAINT APPLICATION TOOLS	3.2.1	draw shapes and objects using the Pencil tool of Paint Application	Drawing shapes and objects using the Pencil tool of the Paint Application	Assist pupils open Paint Application window and use Pencil tool to draw shapes and objects.	Exercise: Pupils to draw objects and shapes and colour
TOOLS	3.2.2	colour shapes and images using the Fill With Colour tool of the Paint Application tool	Colour shapes and objects using the Fill With Colour tool of the Paint Application tool	Assist pupils to pick colours from the Colour Pallet and use the Fill With Colour tool to colour the shapes and objects drawn.	Coloui

PRIMARY FOUR

SECTION ONE

CARE OF ICT TOOLS AND INTRODUCTION TO TYPING SKILLS

- 1. appreciate a clean environment
- 2. acquire further mouse and typing skills

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
	The pupil will be able to:			
UNIT 1 GENERAL CARE OF ICT TOOLS AND ENVIRONMENT	1.1.1 care for ICT tools and maintain a clean computer environment	Taking care of ICT tools e.g. daily cleaning occasional blowing off dust disconnect power when not in use do not tamper with any form of electrical cable occasional servicing	Discuss the care of ICT tools and the environment. Pupils discuss the need for keeping ICT tools and environment clean. NOTE: Draw pupils attention to the danger of tampering with electrical cables	Assignment: Pupils to write the 'dos' and 'don'ts' of the use of the computer laboratory
UNIT 2	1.2.1 use the mouse to drag,	 covering when not in use cleaning of software Maintaining a clean environment. No food No drinks No litter etc. Using mouse to click, hold, drag and	e.g. electric shock Demonstrate how to click, drag and	
DRAG AND DROP	hold and drop	Left click and hold Click, drag and drop	drop using the game of solitaire. Pupils practise click, drag and drop by playing the game of solitaire.	Exercise: Pupils to perform - Left single click - Left click and hold - Left Double click
			NOTE: Teacher should make sure that pupils do not drop icons into different programmes	

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
	The pupil will be able to: 1.2.2 use a graphic program to draw objects and shapes	Using graphic program to draw	Demonstrate the use of a graphic program to draw images e.g. Ghana flag objects e.g. fruits, animal shapes e.g. rectangle, house	Pupils to draw and colour themes and events that they know about.
UNIT 3 TYPING THE NUMBER ROW	1.2.3 type numbers using the number row.	Typing of numbers using the number row.	Assist pupils to type numbers using the number row	Pupils to type 1 – 100 using WordPad

SECTION TWO

OPENING OF APPLICATION AND TYPING SKILLS

- be able to turn on the computer and open Application using the start menu
 to type short passages in WordPad

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 OPENING APPLICATION USING START MENU	The pupil will be able to: 2.1.1 turn on the computer 2.1.2 open Application using the Start Menu button	Turning on the computer: • System Unit before the Monitor Opening Applications using the Start Menu button	Demonstrate the procedure for turning on the computer: 1. turn on System Unit 2. turn on the Monitor Pupils to practise how to turn on the computer: Guide pupils to open Applications using the Start Menu button e.g. WordPad, Paint, Encarta	
UNIT 2 FAIR COPYING	2.2.1 type short passages using Text Editor or WordPad	Typing short passages using Text Editor or WordPad	Assist pupils to open any Text Editor or Word Pad and type short passages	

SECTION THREE

INTRODUCTION TO BASIC PARTS OF THE COMPUTER HARDWARE

- recognise of the basic parts and functions of the computer hardware
 improve on keyboarding skills

UNIT	S	PECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 BASIC PARTS OF THE COMPUTER HARDWARE	3.1.1	pil will be able to: identify the basic parts and functions of the computer hardware	The basic parts of the computer hardware: Monitor, System Unit, Keyboard, Mouse Functions of the basic parts of the computer hardware • System Unit – performs the main task of the computer • Monitor – shows what is happening in the System Unit like the TV • Keyboard – used for typing • Mouse – used for pointing to things on the Monitor • Ports and connectors	Assist pupils to identify the basic parts of computer hardware. Discuss with pupils the basic functions of the computer hardware.	Pupils to label parts of a computer from a picture to be provided by teacher and state their functions
SUSTAINED COPYING	3.2.1	type using the appropriate keys of the keyboard	Using the appropriate keys of the keyboard to type	Students practise typing using the appropriate keys and fingers	Durile to tone a longer
	3.2.2	type a longer passages applying the typing skills acquired	Typing longer passages applying the typing skills acquired .	Assign pupils to type longer passages applying all the skills (lower, bottom qwerty number rows and lower and upper case characters)	Pupils to type a longer passage using WordPad.

PRIMARY FIVE

SECTION ONE

CREATING AND SAVING DOCUMENT

- acquire skills in creating and saving document on the desktop
 improve upon typing skills

UNIT	SPE	ECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 INTRODUCTION TO THE DESKTOP SCREEN	1.1.1	il will be able to: identify the features on the desktop screen and state their importance	Features on the desktop screen	Assist pupils to identify features and discuss their importance e.g. icons, start menu, clock	
			Importance of the features on the desktop screen Icon – used to open programmes, folder and files Start Menu button – used to open programmes and view all programmes installed Clock – shows time and date		
UNIT 2 CREATING AND SAVING NEW DOCUMENT	1.2.1	open and type passage (s) using Text Editor or WordPad	Opening and typing of passage(s) using Text Editor or WordPad	Assist pupils to open Text Editor or WordPad Give pupils passage(s) to type using Text Editor or WordPad	Pupils to type passage(s) and save it on the desktop.
		save documents with a name on the desktop 'Save As' command	Saving documents on the desktop using the 'Save As' command	Assist pupils to name and save documents on the desktop using the 'Save As' command e.g. - click file - click Save As - select desktop - type file name - click save Discuss with pupils the importance of naming files e.g. for storage and easy retrieval	

UNIT	SP	ECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 3 SAVING FILE IN PAINT APPLICATION	The pu	pil will be able to: open Paint Application and draw objects using the drawing tools.	Opening Paint Application Drawing objects using Paint Application tools: circle, ellipse, square	Assist pupils to open Paint Application and use the drawing tools to draw objects	
	1.3.2	save a file with a name on the desktop	Saving a file with a name on the desktop	Guide pupils to apply the skills in naming and saving files to save their work on the desktop	
UNIT 4 BASIC TYPING DEVELOPMENT	1.4.1	use Typing Software (e.g. Typing Tutor, Mavis Beacon) to improve their fundamental skills in typing.	Practicing typing using software drills (e.g. Typing Tutor, Mavis Beacon) in the home keys	Guide pupils to open a typing software e.g. Typing Tutor, Mavis Beacon and practice typing the home keys NOTE: Pupils to do a lot of practice to acquire more skills in typing	

SECTION TWO

TYPING SPEED DEVELOPMENT AND RE-NAMING OF FILE

- acquire speed in typing
 acquire skills in, and recognise the importance of re-saving file

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 TYPING SPEED DEVELOPMENT (15 -20 WORDS PM)	The pupil will be able to: 2.1.1 type with speed	Improving speed in typing using typing software: e.g. Typing Tutor or Mavis Beacon	Pupils to use typing software to type.	
		Typing with speed i.e. 15 – 20 words per minute	Pupils to check their speed with the help of the typing software used NOTE: Emphasis should be on speed not accuracy.	
UNIT 2 RE-SAVING FILE	 2.2.1 open an existing file on the desktop 2.2.2 type short sentences to an existing file 2.2.3 re-saving file using the 'Save' 	Opening an existing file on the desktop Typing of sentences to an existing file. Re-saving of file using the 'Save As' command in the file menu .	Pupils practise opening file on the desktop Pupils add a paragraph to an existing file. Pupils to re-save using the 'Save As command Discuss the difference between 'Save' and 'Save As' commands	

SECTION THREE

CREATION OF FOLDERS AND TYPING SPEED DEVELOPMENT

General Objective: The pupil will:

acquire basic skills in folder creation
 improve upon typing speed

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 CREATING OF FOLDERS	The pupil will be able to: 3.1.1 create and name folders on the desktop 3.1.2 open folders applying skills in double-clicking	Creating and naming folders on the desktop Opening of folders applying skills in double-clicking	Assist pupils to create and name folders on the desktop Let pupils apply double clicking skills to open their folders.	Pupils to create folders on the desktop.
UNIT 2 TYPING SPEED DEVELOPMENT (20 -25 WORDS PM)	3.2.1 type with speed	Improving speed in typing using a typing software: e.g. Typing Tutor or Mavis Beacon Typing with speed i.e. 20 – 25 words per minute	Pupils to use typing software to type with speed and accuracy. Pupils to check their speed with the help of the typing software used NOTE: Teacher assists pupils to check their speed on the software used.	Exercise: Pupils to type 20 – 25 words per minute for 5 minutes

PRIMARY SIX

SECTION ONE

BASIC TEXT FORMATTING

- acquire skills in changing font, font size and style
 improve upon typing speed

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 CHANGING FONT, FONT SIZE, AND STYLE	The pupil will be able to: 1.1.1 change font, font size and style using the format menu in Text Editor or WordPad	Changing font, font size and style using the format menu in Text Editor or WordPad	Give pupils a passage to type and change the font, font size and font style using the format menu	
UNIT 2		 select/highlight text by applying the mouse skills click format on the menu click font select a number under Size in the font dialog box click OK remove highlighting 	NOTE: Assist pupils to change font, font size and font style before closing the dialogue box.	
TYPING SPEED DEVELOPMENT (20 – 30 WORD PM)	1.2.1 type with speed	Improving speed in typing using a typing software: e.g. Typing Tutor or Mavis Beacon Typing with speed i.e. 25 – 30 words per minute	Pupils to use typing software to type with speed. Pupils to check their speed with the help of the typing software used	Exercise: Pupils to type 25 – 30 words per minute for 5 minutes.

SECTION TWO

INTRODUCTION TO INTERNET AND TYPING SPEED DEVELOPMENT

- acquire basic skills in Internet Application
 improve upon typing speed

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 INTRODUCTION TO INTERNET	The pupil will be able to: 1.1.1 explain the concept of Internet	Concept of Internet Internet is an International Network that links global communities In the use of the Internet: There are no borders There are no Police personnel There are bad people who want to take advantage of others e.g. (419)	Pupils brainstorm and discuss the concept of Internet	
	1.1.2 state the importance of Internet	Source of Internet source of free information. access to free educational materials e.g. books, lesson plans and notes, educational games easy and free communication	Pupils in groups, discuss and present the importance of Internet	
	1.1.3 explore a website to get information from other countries	Exploring a website for information	Pupils to explore a website for information	Pupils answer questions from given websites
UNIT 2 TYPING SPEED DEVELOPMENT	1.2.1 type with speed	Improving speed in typing using a typing software: e.g. Typing Tutor or Mavis Beacon Typing with speed i.e. 30 – 35 words per minute	Pupils to use typing software to type with speed Pupils to check their speed with the help of the typing software used	

SECTION THREE

TYPING AND MOUSE SKILLS

- acquire speed and accuracy in typing
 acquire skills in re-naming files and folders using the right mouse click
 acquire skills in printing documents

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
UNIT 1 TYPING SPEED DEVELOPMENT (25 – 30 WORDS PM)	The pupil will be able to: 3.1.1 type with speed	Improving speed using a typing software: e.g. Typing Tutor or Mavis Beacon Typing with speed i.e. 25 – 30 words per minute	Pupils to use typing software to type to improve upon their speed. Pupils to check their speed with the help of the typing software used	
UNIT 2 THE USE OF THE RIGHT MOUSE CLICK	3.2.1 use the right mouse click to re- name files and folders	Using right mouse click to rename files and folders on the desktop: - select file or folder - click the right button of the mouse - click rename - type new file name - press the enter key	Assist pupils to rename files and folders on the desktop using the right mouse click	
UNIT 3 PRINTING OF DOCUMENT	3.3.1 print a document using the print icon	Printing of document using the print icon	Pupils type letters and print using the print icon	Pupils to type and print letters for assessment.