Computer Studies FORM 1 2 3 4 Schemes OF WORK Combined

Database Systems (Jaamacada Hargeysa)

COMPUTER FORM 1 SCHEMES OF WORK – TERM 1							
WEEK	**LESSON**	**TOPIC**	**SUB-TOPIC**	**LEARNING OBJECTIVES**	**TEACHING/LEARNING ACTIVITIES**	**TEACHING/LEARNING RESOURCES**	**REFERENCES**	**REMARKS**
1	**1**		DEFINITION OF A COMPUTER	By the end of the lesson, the learner should be able to • Define computer • Distinguish between data and information • Explain unique characteristics of computer as a data processing tool	Learner to: • Through questions and answer define computer • Through brainstorming distinguish between data and information • Through group discussion, discuss characteristics of a computer as data processing tools	• A calculator • A personal Computer • Charts • Sample data	• Lomghorn Secondary. S.Mburu, G. Chemwa page 1-2 • Computer studies Dr. Onunga and Renu Shah Page 1-2	
	2-3		PHYSICAL PARTS OF A COMPUTER	By the end of the lesson, the learner should be able to • State and explain various physical parts of a computer	• Through question and answer list parts of a Computer • Through brainstorming, explain various parts of a computer	• A working personal computer	• Gateway secondary Revision S.Mburu G. Chemwapg 1 • Foundations of Computer studies by Pepelapg 3	
2	**1**		CLASSIFICATION OF COMPUTERS	By the end of the lesson, the learner should be able to • Classify computer according to physical size	Learner to • In group of two identify and discuss pictures from books, magazines	• Charts or photographs from books, magazines or newspapers	• Gateway secondary Revision S.Mburu G. Chemwapg 7-8	
	2-3		CLASSIFICATION OF COMPUTERS	• Classify computer according to functionality and according to purpose	• Discussion • Q/A	• Charts or photographs from books, magazines or newspapers	• Onunga and Renu Shah Page6	

3	**1**		DEVELOPMENT OF COMPUTERS	By the end of the lesson, the learner should be able to • Explain how computers have developed	• Through brainstorming identify and discuss non-electronic tools	• Charts or photographs from books, magazines or newspapers	• Lomghorn Secondary. S.Mburu, G. Chemwa page 10	
	2-3		ELECTRONIC COMPUTERS	• List five generations computers	• In group of three, discuss five generation computers	• Charts or photographs from books, magazines or newspapers	• Lomghorn Secondary. S.Mburu, G. Chemwa page 12-13 • Foundations of Computer studies by Pepelapg 22	
4	**1**		AREAS WHERE COMPUTER ARE USED	By the end of the lesson, the learner should be able to • Identify areas where computers are used • Describe the listed areas where computers are used	Learner to • Through brainstorming identify and discuss areas where computers are used	• Flash Cards	• Lomghorn Secondary. S.Mburu, G. Chemwa page 14-15	
	2-3		• THE COMPUTER LABORATORY • MEASURES THAT PROTECT COMPUTER	• Define computer laboratory • Describe the safety precautions and practices that protect computer	• Through question and answer define computer laboratory • In group of three, discuss safety precautions and practices that protect computer	• UPS,Surge protector • charts	• Foundations of Computer studies by Pepelapg 47	
5	**1**		MEASURES THAT PROTECT USER	• Describe the safety precautions and practices that protect user	• In group of three, discuss safety precautions practices that protect user	• Antiglare standard furniture		
	2-3		PRACTICAL	By the end of the lesson,	• Through	• Computer	• Gateway	

			HANDS-ON SKILLS	the learner should be able to • Start up a computer • Restart a computer • Shutting down computer	demonstration by the teacher, learner to observe and imitate on how to start up a computer, restart a computer and shut down computer		Secondary Revision, S.MburuG.Chemwapg 21-23	
6	**1**		KEYBOARD AND MOUSE SKILLS KEYBOARD SKILLS	By the end of the lesson, the learner should be able to • Define keyboard • Identify parts of the Keyboard	Learner to • Through brainstorming define keyboard and identify parts of the Keyboard	• Computer keyboard • Mobile keyboard	• Gateway Secondary Revision, S.MburuG.Chemwapg 22	
	2-3		KEYBOARD SKILLS	• Discuss parts of the keyboard • Type using keyboard	• In group of three, discuss parts of the keyboard and type using keyboard	• charts	• Foundations of Computer studies by Pepelapg 25	
7	**1**		TYPING TUTOR	• Identify typing tutors • Use typing tutors	• Through question and answer identify typing tutors and use typing tutors	• Typing tutor software computer		
	2-3		MOUSE SKILLS	• Define computer mouse • Identify parts of the mouse	• Through brainstorming define computer mouse and identify parts of the mouse	• Computer mouse	• Lomghorn Secondary. S.Mburu, G. Chemwa page 23	
8	**1**		MOUSE SKILLS	By the end of the lesson, the learner should be able to: • Describe parts of mouse • Use mouse techniques	• In group of three, discuss parts of the mouse	• Computer mouse	• Foundations of Computer studies by Pepelapg 23-25	
	2-3		MOUSE SKILLS	• Drag and drop items • Open file and folders through double clicking, right clicking	• Through demonstration by the teacher, learner to observe and imitate on how to drag and drop items	• Computer mouse	• Foundations of Computer studies by Pepelapg 23-25	

COMPUTER SYSTEM								
9	**1**		COMPUTER SYSTEMS INPUT DEVICES (KEYING DEVICES	By the end of the lesson, the learner should be able to • Describe computer system • Define input devices	Learner to • Through brainstorming describe computer system • define input devices	• Computer system • PDA's	• Longhorn Secondary. S.Mburu, G. Chemwa page 30-31	
	2-3		INPUT DEVICES (KEYING DEVICES)	• List keying devices • Describe keying devices	• Through questions and answer, list keying devices, describe keying devices	• Computer Keyboard • PDA's Keypad	• Foundations of Computer studies by Pepelapg 68	
10	**1**		POINTING DEVICES	• Define pointing devices • List pointing devices • Describe the listed pointing devices	• Through question and answer define scanning device • In group of three, describe the listed pointing devices	• Mouse • Joystick • Light pen	• Gateway Secondary Revision, S.MburuG.Chemwapg 30-34	
11	**END TERM 1 EXAM**							
12	**REVISION**							

COMPUTER FORM 1 SCHEMES OF WORK – TERM 2

COMPUTER SYSTEMS (cont)

WEEK	LESSON	TOPIC	SUB - TOPIC	OBJECTIVES	LEARNING/TEACHING ACTIVITIES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS
1	1		COMPUTER SYSTEMS DIGITIZERS SPEECH RECOGNITION DEVICES	By the end of the lesson, the learner should be able to • Define digitizer • List other input technologies • Describe the listed input technologies	Learner to: • Through question and answer define digitizer • Through brainstorming to list other input technologies • Through group discussion, discuss the listed input technologies	• Pictures from books and newspapers • PDA's	• Lomghorn Secondary. S.Mburu, G. Chemwa page 37-38 • Foundations of Computer studies by Pepelapg 76	
	2-3		CENTRAL PROCESSING UNIT	By the end of the lesson, the learner should be able to • Define term CPU • List functional elements of CPU	• Through questions and answer define the term CPU • Through brainstorming, list and illustrate the functional elements of CPU	• A working personal computer	• Gateway Secondary Revision, S.MburuG.Chemwapg 40 • Foundations of Computer studies by Pepelapg 77	
2	1		CONTROL UNIT AND ARITHMETIC LOGIC UNIT	• Describe the control Unit and Arithmetic Logic Unit	• Through brainstorming, describe the Control Unit and Arithmetic Logic Unit	• Charts	• Longhorn Secondary. S.Mburu, G. Chemwa page 41-42	
	2-3		MAIN MEMORY	By the end of the lesson, the learner should be able to • Classify computer memories • List examples of primary memory and secondary memory	Learner to: • Through question and answer classify computer memories • Trough brainstorming list examples of primary memory and secondary memory	• Pictures from books • RAM module	• Gateway Secondary Revision, S.MburuG.Chemwapg 41-43	

				• State characteristics of RAM and ROM	• Through questions and answer state characteristics of RAM and ROM			
3	**1**		SPECIAL PURPOSE MEMORIES	• Define special purpose memory • List special purpose memories • Describe Cache memory and Buffers	• Through question and answer define special purpose memory and list special purpose memories • Through brainstorming describe Cache memory and Buffers	• Input/output devices • microprocessor	• Foundations of Computer studies by Pepelapg 77	
	2-3		SPECIAL PURPOSE MEMORIES	• Define registers • List types of registers • Describe the listed types of registers	• Through question and answer define registers and list types of registers • In group of five, discuss the listed types of registers	• Chart	• Longhorn Secondary. S.Mburu, G. Chemwa page 44-45	
4	**1**		MEMORY CAPACITY	By the end of the lesson, the learner should be able to • Define byte • Express memory quantities • Calculate memory quantities	Learner to: • Through questions and answer define byte • Through teachers demonstration, express memory quantities and calculate memory quantities	• RAM module • Flash cards	• Foundations of Computer studies by Pepelapg 79-80	
	2-3		OVERALL FUNCTIONAL ORGANIZATION OF THE CPU	• Define computer bus • List types of computer buses • Describe the listed computer buses • Give an illustration of the overall functional organization of	• Through brainstorming, define computer bus • In group of five, discuss the listed types of computer buses • Through group discussion, illustrate the overall	• Schematic diagram from the book	• Gateway Secondary Revision, S.MburuG.Chemwapg 48	

				the CPU	functional organization of the CPU			
5	**1**		TYPES OF PROCESSORS	• Classify processors • Discuss the listed processor classifications	• Through question and answer Classify processors • Through group discussion, discuss the listed processor classification	• Photograph	• Gateway Secondary Revision, S.MburuG.Chemwapg 48	
	2-3		TRENDS IN PROCESSORS TECHNOLOGY AND SPEED	• List processors Type Manufactures Year and speed	• Through question and answer, list processors Type, manufactures, year and speed	• Photograph	• Longhorn Secondary. S.Mburu, G. Chemwa page 44-47	
6	**1**		OUTPUT DEVICES	By the end of the lesson, the learner should be able to • Define output device • Classify output devices • List softcopy output devices • Describe monitor as a soft copy output device	Learner to: (a) Through question and answer define output device and classify output devices (b) Through group discussion, discuss the listed softcopy output devices	• CRT,LCD, TFT monitors • Speakers • LED	• Gateway Secondary Revision, S.MburuG.Chemwapg 51-60 • Foundations of Computer studies by Pepelapg 80	
	2-3		MONITOR DISPLAY TERMINOLOGIES AND VIDEO GRAPHIC ADAPTERS	• Define the terminologies used in monitor • List and describe the video graphic adapters	• Through question and answer define terminologies • Through group discussion, describe the listed video graphic adapters	• Photograph from books	• Longhorn Secondary. S.Mburu, G. Chemwa page 49-52	
7	**1**		HARDCOPY OUTPUT DEVICES	• Describe hard copy output devices	• Through group discussion, describe hard copy output devices	• Printers • Pictures from magazines • Newspapers	• Foundations of Computer studies by Pepelapg 81	

	2-3		HARD COPY OUTPUT DEVICES	• List factors to consider when purchasing a printer	• Through question and answer list factors to consider when purchasing a printer	• Printers • Pictures from magazines • Newspapers	• Longhorn Secondary. S.Mburu, G. Chemwa page 53	
8	**1**		SECONDARY STORAGE DEVICES AND MEDIA	• List secondary storage media • Describe removable storage device	• Through question and answer list secondary storage media • Through group discussion, describe removable storage device	• Flash disc • Floppy • Diskettes • Memory sticks • Compact disk • Hard disk	• Gateway Secondary Revision, S.MburuG.Chemwapg 61-69	
	2-3		SECONDARY STORAGE DEVICES AND MEDIA	By the end of the lesson, the learner should be able to • Discuss fixed storage device	• Through brainstorming, discuss fixed storage device	• Flash disc • Floppy • Diskettes • Memory sticks • Compact disk • Hard disk	• Foundations of Computer studies by Pepelapg 101	
9	**1**		POWER SUPPLY AND PERIPHERAL DEVICE INTERFACING	• Distinguish between power and interface cables • Describe power cables	• Through question and answer, distinguish between and interface cables	• Computer power cables • Interface cables	• Longhorn Secondary. S.Mburu, G. Chemwa page 65-67	
	2-3		POWER SUPPLY AND PERIPHERAL DEVICE INTERFACING	• Describe interfacing cables	• Through discussion, describe interfacing cables	• Computer power cables • Interface cables	• Longhorn Secondary. S.Mburu, G. Chemwa page 65-67	
10	**1**		BASIC COMPUTER SET-UP AND CABLING	By the end of the lesson, the learner should be able to • Explain basic computer setup and cabling	• Through teachers demonstration, explain basic computer setup and cabling	• Computer power cables • Interface cables	• Foundations of Computer studies by Pepelapg 101	
	2-3		“”	• Mount hard drives and optical drives	• Through teachers demonstration, mount hard drives and optical drives	• Computer	• Foundations of Computer studies by Pepelapg 101	

11	**1**		COMPUTER SOFTWARE	By the end of the lesson, the learner should be able to • Distinguish between system software and application software	• Through question and answer, distinguish between system software and application software	• Computer software's	• Longhorn Secondary. S.Mburu, G. Chemwa page 73-76	
	2-3		COMPUTER SOFTWARE	• Classify software according to purpose	• Through brainstorming, classify software according to purpose	• Computer software's	• Foundations of Computer studies by Pepelapg 143-144	
12	**1**		COMPUTER SOFTWARE	• Classify software according to acquisition	Through brainstorming, classify software according to acquisition	• Computer software's	• Foundations of Computer studies by Pepelapg 143-144	
	2-3		COMPUTER SOFTWARE	• Classify software according to end user- License • Evaluate criteria for selecting computer system	• Through brainstorming, classify software according to user-License • Through question and answer, Evaluate criteria for selecting computer system	• Computer software's	• Foundations of Computer studies by Pepelapg 143-144	
13	**END TERM EXAM AND REVISION**							

OPERATING SYSTEM (OS)							
WEEK	**LESSON**	**TOPIC**	**SUB - TOPIC**	**OBJECTIVES**	**LEARNING/TEACHING ACTIVITIES**	**LEARNING/TEACHING RESOURCES**	**REFERENCES**	**REMARKS**
1	**1**		DEFINITION OF AN OPERATING SYSTEM	By the end of the lesson, the learner should be able to • Illustrate an operating system as a supervisor of hardware and application software	Learner to • Identify operating system used by the computer	• Charts • computer	• Longhorn Secondary. S.Mburu, G. Chemwa page 82 • Foundations of Computer studies by Pepelapg 155	
	2-3			• Identify parts of operating system	• Through brainstorming describe parts of the operating system	• Charts • computer	• Longhorn Secondary. S.Mburu, G. Chemwa page 82 • Foundations of Computer studies by Pepelapg 155	
2	**1**		FUNCTION OF AN OPERATING SYSTEM	By the end of the lesson, the learner should be able to • List devices under the operating system	• Through questions and answers, list devices under control of operating system	• Flash Cards	• Longhorn Secondary. S.Mburu, G. Chemwa page 83-85	
	2-3		DEVICES UNDER THE OPERATING SYSTEM CONTROL	• State functions of an operating system in resource management	• Through brainstorming, state functions of operating system	• Computer • Operating system • software	• Gateway Secondary Revision, S.MburuG.Chemwapg 87	
3	**1**		TYPES OF OPERATING SYSTEM	By the end of the lesson, the learner should be able to • List types of operating system	Learner to (a) List and describe types of operating system	• PC's loaded with different operating systems, pupils book part 3,4	• Longhorn Secondary. S.Mburu, G. Chemwa page 83-85	
	2-3			Describe:	(a) Draw a summary	• PC's loaded with	• Foundations of	

				• Single program and multitasking operating system	diagram of various operating system types	different operating systems, pupils book part 3,4	Computer studies by Pepelapg 170	
4	**1**			• Multi- user and single user operating system	• Draw a summary diagram of various operating system types	• Chart	• Foundations of Computer studies by Pepelapg 170	
	2-3			• Command line, menu driven and graphical user interface operating system	• Draw a summary diagram of various operating system types	• Chart	• Gateway Secondary Revision, S.MburuG.Chemwapg 90-91	
5	**1**		HOW OPERATING SYSTEM ORGANIZE INFORMATION	By the end of the lesson, the learner should be able to • State and explain factors that dictate file organization	• Identify features on windows desktop	• PC loaded with any version of windows	• Longhorn Secondary. S.Mburu, G. Chemwa page 89-94	
	2-3			• Describe files, folders and drives • Start Microsoft windows	• Identify features on windows desktop	• PC loaded with any version of windows	• Longhorn Secondary. S.Mburu, G. Chemwa page 89-94	
6	**1**		MANAGING FILE AND FOLDERS	By the end of the lesson, the learner should be able to • Distinguish between folder and directory • Draw directory (folder) tree	Learner to • Create folder in both Graphical user interface and MS-DOS	• Flash cards	• Longhorn Secondary. S.Mburu, G. Chemwa page 95-97	
	2-3		MANAGING FILE AND FOLDERS	• Create ne files and folders • Identify parts of an application window		• Flash cards	• Longhorn Secondary. S.Mburu, G. Chemwa page 95-97	
7	**1**			• Save changes to a	Learner to		• Personal	• Longhorn

				file • Rename files or folders • Copy, move, sort files and folders	• Save changes to a file, rename files and folders	computer loaded with any version of windows	Secondary. S.Mburu, G. Chemwa page 95-97	
	2-3			• Manipulate files and folders using Short cut menu, drag and drop Selecting multiple files and folders Searching for files and folders	• In group of two, manipulate files and folders using Shortcut menu, drag and drop Selecting multiple files and folders Searching for files and folders	• Personal computer loaded with any version of windows	• Longhorn Secondary. S.Mburu, G. Chemwa page 90	
8	**1**		DISK MANAGEMENT USING WINDOWS	By the end of the lesson, the learner should be able to • Format disk • Back-up data	Learner to: In group of three • Format disk • Back-up data	• Personal computer loaded with any version of windows	• Longhorn Secondary. S.Mburu, G. Chemwa page 106-113	
	2-3			• scan problems related to disk • defragment a disk	In group of three • use scan disk to detect disk errors • defragment a disk	• floppy diskette • flash disk	• Longhorn Secondary. S.Mburu, G. Chemwa page 106-113	
9	**1**			• Compress files within a disk • Scan a disk for virus	In a group of three • Compress a disk	• floppy diskette • flash disk	• Longhorn Secondary. S.Mburu, G. Chemwa page 106-113	
	2-3			• Create/restore back-up data • Create startup disk • Partition a disk	In group of three • Partition a disk	• Un partition • Hard disk	• Longhorn Secondary. S.Mburu, G. Chemwa page 106-113	
10	**1**		INSTALLATION AND CONFIGURING AN OPERATING SYSTEM	By the end of the lesson, the learner should be able to • Know installation requirements	Learner to • List installation requirement • Describe the listed installation requirements	• Personal computer without an operating system	• Longhorn Secondary. S.Mburu, G. Chemwa page 114-117	

	2-3			• Install operating system	• With the help of the teacher install operating system	• Installation and start up disk • Manufactures documentations	• Foundations of Computer studies by Pepelapg 170	

COMPUTER FORM 2 SCHEMES OF WORK – TERM 1

APPLICATION PACKAGES (WORD PROCESSORS)

WEEK	**LESSON**	**TOPIC**	**SUB - TOPIC**	**OBJECTIVES**	**LEARNING/TEACHING ACTIVITIES**	**LEARNING/TEACHING RESOURCES**	**REFERENCES**	**REMARKS**

1		Reporting from home and settling for first term work						
2	**1**		DEFINITION OF WORD PROCESSOR	By the end of the lesson, the learner should be able to • Define the term word processor • Explain the purpose of a word processor	• Q/A discussion	• Newspapers • Letters • Cards • books	• Longhorn Secondary. S.Mburu, G. Chemwa page 1-3	
	2-3		USING A WORD PROCESSING PACKAGE	By the end of the lesson, the learner should be able to • Start a Microsoft word • Explain the Microsoft screen layout	• Q/A demonstration practical	• Handouts • Books • Working personal computer	• Longhorn Secondary. S.Mburu, G. Chemwa page 5-10	
3	**1**		RUNNING THE PROGRAMME	By the end of the lesson, the learner should be able to • Save and retrieve • Close and exit	• Q/A demonstration practical	• Books • Handouts • Working computer	• Longhorn Secondary. S.Mburu, G. Chemwa page 13-17	
	2-3		EDITING AND FORMATTING A DOCUMENT	By the end of the lesson, the learner should be able to • Select a document • Move, copy and delete • Insert and type over	• Q/A demonstration practical	• Handouts • Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 16-19	
4	**1**		FIND AND REPLACE	By the end of the lesson, the leaner should be able to • Define the term find and replace • Find and replace a documents • Use thesaurus	• Q/A Demonstration practical	• Letters • Card working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 16-24	

	2-3		TEXT FORMATTING	By the end of the lesson, the learner should be able to • Bold, italicize, underline, change fonts	• Q/A Demonstration practical	• Letters • Cards • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 22-23	
5	**1**		PARAGRAPH FORMATTING	By the end of the lesson, the learner should be able to • Drop cap, sub and superscript • Align and indent text	• Q/A demonstration practical	• Handouts • Cards • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 22-23	
	2-3		PARAGRAPH FORMATTING	By the end of the lesson, the learner should be able to • Space and section break • Bullet and number • Insert columns/page headers and footers	• Q/A demonstration practical	• Books • Newspapers • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 22-23	
6	**1**		SET-UP	By the end of the lesson, the learner should be able to • Set up margins • Set paper size and orientation	• Q/A demonstration practical	• Handouts • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 33-35	
	2-3		SET-UP	By the end of the lesson, the learner should be able to • Define the term table • Crate tables • Insert rows and columns • Merge/split rows	• Q/A Demonstration practical	• Handouts • Working computer • books	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 37-39	

7	**1**		TABLE CONVERSION/ ARITHMETIC CALCULATIONS	By the end of the lesson, the learner should be able to • convert text to a table and vice verse • import tables/perform calculations	• Q/A Demonstration practical	• Handouts • Working computer • Chalk board	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 40-41	
	2-3		MAIL MERGE	By the end of the lesson, the learner should be able to • Define the term mail merge • Create: main document and data source • Merge fields	• Q/A Demonstration practical	• Letters • Card • Working computer • Chalk board	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 44-46	
8	**1**		GRAPHICS	By the end of the lesson, the learner should be able to • Define the term graphic • Insert/edit graphics	• Q/A Demonstration practical	• Clip art • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 44-49	
	2-3		PRINTING	By the end of the lesson, the learner should be able to • Define the term printing • Set up the printer and print	• Q/A Demonstration practical	• Letters • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 44	
9	**1**		SPREAD SHEETS (SPREADSHEETS)	By the end of the lesson, the learner should be able to • Define the term spreadsheets • Explain the application areas of spreadsheet	• Q/A Discussion	• Call register • Accounts book	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 52-53	
	2-3		CREATING A	By the end of the lesson,	• Q/A demonstration	• Handouts	• Longhorn	

			WORKSHEET	the learner should be able to • Define the term worksheet • Create a worksheet • Save/retrieve a worksheet	practical	• Class register • Accounts book • Working computer	Computer studies Secondary. S.Mburu, G. Chemwa page 57-65	
10	**1**		CELL DATA TYPES	By the end of the lesson, the learner should be able to • Define the term cell data type • Explain the different data types	• Q/A discussion	• Books	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 66	
	2-3		CELL REFERENCING	By the end of the lesson, the learner should be able to • Define the term cell referencing • Explain the different cell referencing • Apply cell referencing on a computer	• Q/A Demonstration practical	• Books • Handouts • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 66-69	
11	**1**		FUNCTIONS AND FORMULAE	By the end of the lesson, the learner should be able to • Differentiate between functions and formulae • Apply functions and formulae on a document	• Q/A demonstration Practical	• Working computer • Books	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 70-73	
	2-3		WORKSHEET FORMATTING	By the end of the lesson, the learner should be able to • Format a worksheet: text,	• Q/A Demonstration practical	• Books • Handouts • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G.	

				numbers, rows, columns and global			Chemwa page 74-79	
12	**1**		DATA MANAGEMENT	By the end of the lesson, the learner should be able to • Explain the terms, Sort, filter, total forms • Apply the above features	• Q/A Demonstration practical	• Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 73-75	
	2-3		CHARTS/GRAPHICS	By the end of the lesson, the learner should be able to • Definite the terms chart • Explain the different charts • Insert charts	• Q/A Demonstration practical	• Books • Handouts • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 77-79	
	END TERM EXAMS/SCHOOLS CLOSE							

COMPUTER FORM 2 SCHEMES OF WORK – TERM 2

DATABASES

WEEK	**LESSON**	**TOPIC**	**SUB - TOPIC**	**OBJECTIVES**	**LEARNING/TEACHING ACTIVITIES**	**LEARNING/TEACHING RESOURCES**	**REFERENCES**	**REMARKS**
1		Reporting from home and settling for the second term work						
2	**1**		DATABASE	By the end of the lesson, the learner should be able	• Q/A discussion	• Class list	• Longhorn Computer	

				to • Define the database • Explain the concept of D/base			studies Secondary. S.Mburu, G. Chemwa page 93-94	
	2-3		DATABASE MODELS	By the end of the lesson, the learner should be able to • Define the term d/base model • Explain the difference d/base models • Discuss the features of a database	• Q/A demonstration practical	• Handouts • Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 96-98	
3	**1**		DATA ORGANIZATION	By the end of the lesson, the learner should be able to • Organize data in a database • Start Ms Access	• Q/A demonstration practical	• Handouts • Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 97-100	
	2-3		MS ACCESS SCREEN LAYOUT	By the end of the lesson, the learner should be able to • Explain the access screen layout • Create a database	• Q/A Demonstration practical	• Letters • Cards • Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 100-104	
4	**1**		EDITING A D/BASE	By the end of the lesson, the learner should be able to • Edict a data base	• Q/A Demonstration practical	• Letters • Cart • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 108-109	
	2-3		QUERIES	By the end of the lesson, the learner should be able to	• Q/A Demonstration Practical	• Letters • Card • Working	• Longhorn Computer studies	

				• Define the term query • Crate a query		computer	Secondary. S.Mburu, G. Chemwa page 116-117	
5	**1**		UPDATING A QUERY	By the end of the lesson, the learner should be able to • Update a query • View a query	• Q/A Demonstration practical	• Handouts • Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 120-122	
	2-3		FORM DESIGN	By the end of the lesson, the learner should be able to • Explain the form layout • Create a form	• Q/A Demonstration practical	• Books • Newspaper • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 110-113	
6	**1**		FORMATTING FIELDS	By the end of the lesson, the learner should be able to • Display records in a form • Format fields	• Q/A Demonstration practical	• Handouts	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 113	
	2-3		REPORTS LAYOUT	By the end of the lesson, the learner should be able to • Define a report • Create a report • Modify a report	Q/A Demonstration Practical	• Handouts • Books • Working Computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 125-129	
7	**1**		REPORTS LAYOUT	By the end of the lesson, the learner should be able to • Sort and group data in a report • Design labels	• Q/A Demonstration practical	• Forms • Report • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 40-41	

	2-3		PRINTING	By the end of the lesson, the learner should be able to • Define the term printing • Print: form and a report	• Q/A Demonstration Practical	• Forms • Report • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 112	
				DESKTOP PUBLISHING				
8	**1**		DESKTOP PUBLISHING	By the end of the lesson, the learner should be able to • Define DTP S/W • State then purpose of DTPS/W	• Q/A Demonstration practical	• Clip art • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 132-134	
	2-3		DESIGNING A PUBLICATION	By the end of the lesson, the learner should be able to • Explain the DTP S/W • Discuss the types of DTP publications	• Q/A Observation Practical	• Letters • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 133-134	
9	**1**		DESIGNING A PUBLICATION	By the end of the lesson, the learner should be able to • Run the DTP program • Explain the DTP screen layout	• Q/A discussion	• Cards, certificates, text, calendars, text books	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 134-136	
	2-3		DESIGNING A PUBLICATION	By the end of the lesson, the learner should be able to • Set up a publication • Manipulate text and graphics	Q/A demonstration practical	• Cards, certificates, text calendars, textbooks • Working Computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 139-143	

10	**1**		TEXT	By the end of the lesson, the learner should be able to • Design page layout • Use a ruler to measure	• Q/A discussion	• Calendars, textbooks	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 158	
	2-3		GRAPHICS	By the end of the lesson, the learner should be able to • Define the term graphics • Change full stroke • Reshape objects	• Q/A Demonstration practical	• Books • Handouts • Working Computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 150	
11	**1**		GRAPHICS	By the end of the lesson, the learner should be able to • Copy an object • Import and wrap text	• Q/A Demonstration Practical	• Books • Handouts • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 161-162	
	2& 3		GRAPHICS	By the end of the lesson, the learner should be able to • Group objects • Lock objects	• Q/A Demonstration Practical	• Books • Handouts • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 164-168	
12/ 13	**1**		ROTATE/CROP	By the end of the lesson, the learner should be able to • Explain the terms, sort, filter, total, forms • Apply the above features	• Q/A Demonstration practical	• Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 164	
	THE SCHOOL CLOSES/END OF TERM EXAMS							

COMPUTER FORM 1 SCHEMES OF WORK – TERM 1

INTERNET AND E-MAIL

WEEK	LESSON	TOPIC	SUB - TOPIC	OBJECTIVES	LEARNING/TEACHING ACTIVITIES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS
1	Reporting from home and settling for the first term work							
2	1		INTERNET AND E-MAIL	By the end of the lesson, the learner should be able to • Define the term internet • Explain the development of internet	• Q/A discussion • Demonstration • observation	• internet • Text book • Working Computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 168-169	
	2-3		IMPORTANCE OF THE INTERNET	By the end of the lesson, the learner should be able to • Explain the importance of the internet	• Q/A demonstration practical	• Handouts • Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 266-275	
3	1		INTERNET CONNECTIVITY	By the end of the lesson, the learner should be able to • Define the internet connectivity • Explain elements of IC	• Q/A Demonstration Practical	• Handouts • Books • Modem S/W • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 273-276	
	2-3		INTERNET SERVICES	By the end of the lesson, the learner should be able to • Explain the internet services	• Q/A Demonstration Practical	• Letters • Cards • Books • computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page	

							273-276	
	1		ACCESSING INTERNET	By the end of the lesson, the learner should be able to • Log in/Sign in • Surf/browse	• Q/A Demonstration practical	• Web pages • Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 279	
4	**2-3**		HYPER LINKS AND SEARCH ENGINES	By the end of the lesson, the learner should be able to • Define the term search engine • Use search engines	• Q/A Demonstration practical	• Letters • Card • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 177-179	
5	**1**		ELECTRONIC MAIL	By the end of the lesson, the learner should be able to • Explain the term e-mail • Discuss the use of email s/w	• Q/A Demonstration practical	• Handouts • Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 178-180	
	2-3		E-MAIL	By the end of the lesson, the learner should be able to • State the e-mail facilities • Compose mails • Check mails	• Q/A Demonstration practical	• Books • Web pages • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 30-37	
6	**1**		E-MAIL	By the end of the lesson, the learner should be able to • Manipulate an e-mail	• Q/A Demonstration practical	• Handouts • Books • Web pages • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 180	
	2-3		SET-UP	By the end of the lesson,	• Q/A Demonstration	• Websites	• Longhorn	

				the learner should be able to • Fax e-mail • Attach files	practical	• Web pages • Working computer	Computer studies Secondary. S.Mburu, G. Chemwa page 181-182	
7	**1**		TEL MESSAGING	By the end of the lesson, the learner should be able to • Explain the term tel messaging • Develop contact mgt	• Q/A Demonstration practical	• Handouts • Web pages • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 181-182	
	2-3		EMERGING ISSUES	By the end of the lesson, the learner should be able to • Explain the emerging issues • Search for the emerging issues in the net	• Q/A Demonstration practical	• Websites • Web pages • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 182-183	
8	**1**		GRAPHICS	By the end of the lesson, the learner should be able to • Define the term graphic • Insert/edit graphics	• Q/A Demonstration practical	• Web sites • Web pages • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 44-49	
	2-3		G. DATA SECURITY AND CONTROLS	By the end of the lesson, the learner should be able to • Define the term data security • Identify security threats on ICT	• Q/A Demonstration practical	• Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 185-186	
9	**1**		CONTROL MEASURES	By the end of the lesson, the learner should be able to • Discuss the control measures	• Q/A discussion	• Internet • Books • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G.	

				on ICT			Chemwa page 186-188	
	2-3		COMPUTER CRIMES	By the end of the lesson, the learner should be able to • Define the term computer crimes • Explain the computer crimes	• Q/A Demonstration Practical	• Books • Internet • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 188-190	
10	**1**		ICT PROTECTION	By the end of the lesson, the learner should be able to • Discuss ICT protection measures	Q/A Demonstration practical	• Books • Internet • Handouts • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 190-193	
	2-3		LAWS OF ICT	By the end of the lesson, the learner should be able to • Define the terms ethics • Explain the ethical issues	• Q/A demonstration practical	• Books • Internet • Handouts • Books • Working computer	• Computer studies by S.JohnOnunga page 327-328	
11	**1**		ICT LEGISLATION	By the end of the lesson, the learner should be able to • Discuss ICT laws	• Q/A discussion		• Computer studies by S.JohnOnunga page 328-331	
	2-3		WORKSHEET FORMATTING	By the end of the lesson, the earner should be able to • Format a w/sheet: text, numbers, rows, columns and global	• Q/A Demonstration practical	• Books • Handouts • Working computer	• Longhorn Computer studies Secondary. S.Mburu, G. Chemwa page 190-193	
	SCHOOLS CLOSES END OF YEAR							

COMPUTER FORM 3 SCHEMES OF WORK – TERM 1

WEEK	LESSON	TOPIC	SUB - TOPIC	OBJECTIVES	LEARNING/TEACHING ACTIVITIES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS
1	1	Data Representation in a computer	DEFINITION & INTRODUCTION	By the end of the lesson, the learner should be able to • Define data • Define information • Classify computers according to functionality with illustration	• Questions and answers • Discussions in groups • brainstorming	• computer keyboard • electronic circuits • Charts • Photographs • Pictures from books	• Longhorn Computer studies Bk 3 page 1-3 • Computer studies by Onunga and Shah page 1	
	2		DATA REPRESENTATION	By the end of the lesson, the learner should be able to • Represent data in digital computers (i) On electronic circuits (ii) On magnetic media (iii) Optical media	• Discussions in groups • Exercises by the teacher	• Charts • Floppy diskettes • Compact disk • Electronic circuit	• Longhorn Computer studies Bk 3 page 23 • Computer studies by Onunga and Shah page 1	
	3-4	Data Representation	DATA REPRESENTATION	By the end of the lesson, the learner should be able to • Give reasons why binary system is used in computers • Define bits, bytes, nibble and word	• Discussions • Question and answer	• charts	• Longhorn Computer studies Bk 3 page 24 • Computer studies by Onunga and Shah page 1	
2	1	Data	NUMBER SYSTEMS	By the end of the lesson,	• Group discussions	• Charts	• Longhorn	

		Representation		the learner should be able to • Define decimal number • Represent data in decimal number system • Represent data in actual number system	• Exercises given and marked by the teacher	• Simple calculations	• Computer studies Bk 3 page 25 • Computer studies by Onunga and Shah page 6	
	2		NUMBER SYSTEM	By the end of the lesson, the learner should be able to • Represent data in actual number system • Represent data in Hexadecimal number system	• Group discussions • Questions and answering • exercises	• charts • simple calculations • Computer	• Longhorn Computer studies Bk 3 page 26 • Computer studies by Onunga and Shah page 7-8	
	3/4	**QUIZ AND PROBLEM SOLVING** **Teacher administers small assignment and revises for better retention**						
3	**1**	Data representation	FURTHER CONVERSION OF NUMBER SYSTEMS	By the end of the lesson, the learner should be able to • Convert binary number to decimal number system • Convert decimal numbers to binary numbers	• Questions and answers • Discussions in groups	• Charts • Simple calculations • Questions papers	• Longhorn Computer studies Bk 3 page 26 • Computer studies by Onunga and Shah page 8	
	2	"	"	By the end of the lesson,, the learner should be able to • Convert binary fraction to decimal number system • Convert a decimal fraction to binary	• Discussions • Questions and answers	• Charts • Simple calculations • Questions papers	• Longhorn Computer studies Bk 3 page 26 • Computer studies by Onunga and Shah page	
	3-4	**PROBLEM SOLVING AND QUIZ** **Teacher administers questions and answer session for better retention**						

4	**1**	DATA REPRESENTATION	Converting octal numbers to decimal and binary numbers	By the end of the lesson, the learner should be able to • Convert octal numbers to decimal numbers • Convert octal numbers to binary numbers	• Discussion • Question and answer	• Chart	• Longhorn Computer studies Bk 3 page 26 • Computer studies by Onunga and Shah page 12	
	2	DATA REPRESENTATIONS	Converting hexadecimal numbers to binary number	By the end of the lesson, the learner should be able to • Convert hexadecimal to decimal numbers • Convert hexadecimal numbers to binary numbers	• Discussions • Question and answer	• Charts • Simple calculations • Computers • Scientific calculators	• Longhorn Computer studies Bk 3 page 26 • Computer studies by Onunga and Shah page 13-15	
3-4	**QUIZ AND PROBLEM SOLVING** **Can be inform of a question/answer session for retention**							
5	**1**	DATA REPRESENTATIONS	Symbolic Representation using coding schemes	By the end of the lesson, the learner should be able to • Explain the binary coded decimal code as a representation Scheme (BCD) • Explain the extended Binary coded decimal interchange code (EBCDIC)	• Discussions • Question and answer	• Charts • Scientific Calculators	• Longhorn Computer studies Bk 3 page 26 • Computer studies by Onunga and Shah page 22-27	
	2	DATA REPRESENTATION	Symbolic Representation using coding schemes	By the end of the lesson, the learner should be able to • Explain the American standard code for information interchange code (ASCII) as a	• Discussion in groups	• Charts • Scientific and simple calculator • computer	• Longhorn Computer studies Bk 3 page 26 • Computer studies by Onunga and Shah page 22-27	

				representation scheme				
	3-4	**QUIZ FOR TETENTION** **Administer a small exam**						
6	**1**		BINARY ARITHMETIC OPERATIONS	By the end of the lesson, the learner should be able to • Represent signed binary numbers using prefixing an extra sign bit to a binary number and ones complement	• Teacher demonstrates • Group discussions • Questions and answering	• Simple calculators • PDA's • charts	• Longhorn Computer studies Bk 3 page 27 • Computer studies by Onunga and Shah page 27	
	2		BINARY ARITHMETIC OPERATIONS	By the end of the lesson, the learner should be able to • Represent signed binary numbers using two's complement	• Teachers demonstrates • Question and answer • Group discussions	"	• Longhorn Computer studies Bk 3 page 27 • Computer studies by Onunga and Shah page 27	
	3-4		BINARY ADDITION	By the end of the lesson, the learner should be able to • Perform seven possible binary additions • Outline the procedure for binary additions	• Demonstration by the teacher • Teacher gives and marks questions • Group discussions	• Charts	• Longhorn Computer studies Bk 3 page 27 • Computer studies by Onunga and Shah page 27	
7	**1**		BINARY ARITHMETIC OPERATIONS	By the end of the lesson, the learner should be able to • Perform direct subtraction • Perform subtraction using ones complement	• Discussions • Demonstration by teacher • Question and answer	• Charts • calculator	• Longhorn Computer studies Bk 3 page 26 • Computer studies by	

							Onunga and Shah page 28	
	2		BINARY ARITHMETIC OPERATIONS	By the end of the lesson, the learner should be able to • Perform subtraction using twos complement	• Discussions • Demonstration by teacher • Question and answer	• Charts • calculator	• Longhorn Computer studies Bk 3 page 26 • Computer studies by Onunga and Shah page 28	
	3-4	**QUIZ AND PROBLEM SOLVING** **Teacher evaluates by giving questions to ascertain whether objectives are achieved**						
8	**1**	Data Processing	DEFINITION AND INTRODUCTION	By the end of the lesson, the learner should be able to • Define data information and data processing • Describe the data processing cycle • Give methods of data collection	• Group discussions • Question and answering • brainstorming	• charts • computer	• Longhorn Computer studies Bk 3 page 32 • Computer studies by Onunga and Shah page 32-35	
	2	Data Processing	DATA PROCESSING CYCLE	By the end of the lesson, the learner should be able to • List stages for data processing • Describe the listed data processing cycle stage	• Group discussions • Question and answering • Brainstorming	• charts • computer	• Longhorn Computer studies Bk 3 page 32 • Computer studies by Onunga and Shah page 32-35	
	3-4	Data Processing	DATA PROCESSING CYCLE	By the end of the lesson, the learner should be able to • Give the errors that influence the accuracy of data and information output	• Discussion in groups • Question and answer • Assignments marked by the teacher	• Flash cards • Charts • computer	• Longhorn Computer studies Bk 3 page 35 • Computer	

				• Explain the errors in data processing			studies by Onunga and Shah page 33	
9	**1**	Data processing	DATA INTEGRITY	By the end of the lesson, the learner should be able to • Define data integrity • Give the measurements of data integrity • Accuracy • Timelines • Relevance • Describe the listed data integrity measurements	• Discussion in groups • Illustrations by the teacher • Question and answer	• Flash cards • Simple information system	• Computer studies by Onunga and Shah page 41	
	2	Data processing	DATA PROCESSING METHODS	By the end of this lesson, the learner should be able to • State the ways of minimizing threat to data integrity • List and describe the methods of data processing	• Discussion in groups • Illustrations by the teacher • Question and answer	• Flash cards • Simple information system	• Computer studies by Onunga and Shah page 41	
	3-4	Data processing	COMPUTER FILES	By the end of the lesson, the learner should be able to • Define a computer file • Give the types of computer files • State the advantages of computerized filing	• Discussion in groups • Illustrations by the teacher • Question and answer	• Charts	• Computer studies by Onunga and Shah page 49	
10	**1**	Data processing	ELEMENTS OF COMPUTER FILE	By the end of the lesson, the learner should be able to • List the elements	• Discussion in groups • Question and answer • demonstration	• database • chart with relation database	• Longhorn Computer studies Bk 3	

				of a computer file • Describe the listed elements of a computer file			page 40	
	2	Data processing	CLASSIFICATION OF COMPUTER FILES	By the end of the lesson, the learner should be able to • Classify computer files • Differentiate between logical and physical computer files	• Illustration by the teacher	• Floppy diskette • Compact disc • Computer video tape	• Longhorn Computer studies Bk 3 page 41 • Computer studies by Onunga and Shah page 50	
	3-4	Data processing	COMPUTER PROCESSING FILES	By the end of the lesson, the learner should be able to • Give the types of processing files • Describe the listed types of processing files • Master files • Transaction file • Reference files • Backup files • Sort files	• Discussions • Illustration by the teacher • Question and answer	• Charts • Flash cards	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 41	
11	**1**	Data processing	FILE ORGANIZATION METHODS	By the end of the lesson, the learner should be able to • Define file organization • List the methods of organizing files on a storage media • Describe the listed methods of file organization	• Question and answer • Brainstorming • Discussions in groups	• Floppy diskettes • Compact disk • Video tapes	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 42 • Computer studies by Onunga and Shah page 55	
	2	Data processing	ELECTRONIC DATA PROCESSING	By the end of the lesson, the learner should be able to	• Discussions in groups • Question a	• Charts • Flash cards	• Longhorn Computer studies by	

				• Give the data processing modes • Describe (i) Online processing (ii) Real-time processing (iii) Distributed processing	answer • Illustration by the teacher		Mburu and ChemwaBk 3 page 43-45 • Computer studies by Onunga and Shah page 61	
	3-4	Data processing	ELECTRONIC DATA PROCESSING MODES	Bythe end of the lesson, the learner should be able to • Describe (i) Time- sharing (ii) Batch processing (iii) Multi processing (iv) Multi-tasking (v) Interactive processing	• Discussions in groups • Question and answer • Illustration by the teacher	• Charts • Flash cards	• Computer studies by Onunga and Shah page 612-69	
	12-13	**END OF TERM EXAMS AND CLOSING OF SCHOOL**						

COMPUTER FORM 3 SCHEMES OF WORK – TERM 2

WEEK	LESSON	TOPIC	SUB - TOPIC	OBJECTIVES	LEARNING/TEACHING ACTIVITIES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS
1	**1**	ELEMENTARY PROGRAMMING PRINCIPLES	DEFINITION OF PROGRAMMING	By the end of this lesson, the learner should be able to • Define programming • List the terms used in programming	• Question and answer • Discussion in groups • Illustration by the teacher	• Charts • Books • Journals • Software • computer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 47	

				• Describe the listed terms • Differentiate between source program and object program			• Computer studies by Onunga and Shah page 72	
	2	ELEMENTARY PROGRAMMING PRINCIPLES	LEVELS OF PROGRAMMING LANGUAGE	By the end of the lesson, the learner should be able to • Classify the programming languages • Describe the low level programming language	• Demonstration • Q/A	• Flash cards • Charts • books	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 49-51 • Computer studies by Onunga and Shah page 73	
	3-4	ELEMENTARY PROGRAMMING PRINCIPLES	LEVELS OF PROGRAMMING LANGUAGE	By the end of the lesson, the learner should be able to • Describe the high level language • State the advantages and disadvantages of low-level and high level languages	• Q/A • Discussion	• Flash cards • Charts	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 59 • Computer studies by Onunga and Shah page 74-75	
2	**1**	ELEMENTARY PROGRAMMING PRINCIPLES	PROGRAM DEVELOPMENT	By the end of the lesson, the learner should be able to • List the stages in program development • Describe (i) program recognition (ii) program definition	• Question and answer • Discussion in groups	• Flash cards • charts	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 60-66	
	2	ELEMENTARY PROGRAMMI	PROGRAM DEVELOPMENT	By the end of the lesson, the learner should be able	• Demonstration • Illustration by	• Computer software	• Computer studies by	

		NG PRINCIPLES		to • Describe (i) Program design (ii) Program coding	teacher		Onunga and Shah page 83	
	3-4	ELEMENTARY PROGRAMMING PRINCIPLES	PROGRAM DEVELOPMENT	By the end of the lesson, the learner should be able to • Describe (i) program testing (ii) Program implementation and maintenance	• Discussions in groups • Illustrations by the teacher • Question and answer	• Flash cards • charts	• Computer studies by Onunga and Shah page 85	
3	**1**	ELEMENTARY PROGRAMMING PRINCIPLES	PROGRAM DOCUMENTATION	By the end of the lesson, the learner should be able to • Define the term program documentation • State the forms of documentation • Describe the target groups for documentation	• Discussions in groups • Illustrations by the teacher • Question and answer	• Chalkboard • charts	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 67	
	2	ELEMENTARY PROGRAMMING PRINCIPLES	DEVELOPMENT OF ALGORITHMS	By the end of the lesson, the learner should be able to • Define algorithm • List tools used in algorithm • Distinguish between pseudo code and flow charts	• Discussion in groups • Question and answer • Illustration by the teacher	• Chalkboard • Charts • Flash cards	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 68	
	3-4	ELEMENTARY PROGRAMMING PRINCIPLES	DESIGNING MORE COMPLEX ALGORITHMS	By the end of the lesson, the learner should be able to • Give comparison between a pseudo	• Question and answer • Demonstration by the teacher • Group discussions	• Charts	• Longhorn Computer studies by Mburu and	

				code and a flow chart • Design complex algorithms			ChemwaBk 3 page 68	
4	**1**	ELEMENTARY PROGRAMMING PRINCIPLES	PROGRAM CONTROL STRUCTURES	By the end of the lesson, the learner should be able to • Define program control structures • List three control structures • Describe sequence as a control structure	• Discussions in groups	• Charts • chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 72-78 • Computer studies by Onunga and Shah page 93	
	2	ELEMENTARY PROGRAMMING PRINCIPLES	PROGRAM CONTROL STRUCTURES	By the end of the lesson, the learner should be able to • Describe the use of iteration (looping) as a control structure	• Discussion in groups	• Charts • chalkboard	• Computer studies by Onunga and Shah page 94	
	3-4	ELEMENTARY PROGRAMMING PRINCIPLES	Program control structures	By the end of the lesson, the learner should be able to • Describe selection as a control structure • Design a more complex algorithm	• Illustration by the teacher • Discussion in groups • Question and answer	• Chart • chalkboard	• Computer studies by Onunga and Shah page 94	
5	**1**	**PROBLEM SOLVING**						
	2	SYSTEM DEVELOPMENT	Definition	By the end of the lesson, the learner should be able to • Define the term system • Describe a system list • List the characteristics of a	• Discussion • Question and answer	• Charts • Chalkboard • Journals • Computer • books	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 91-95 • Computer studies by	

				system			Onunga and Shah page 168	
	3-4	SYSTEM DEVELOPMENT	Information system	By the end of the lesson, the learner should be able to • Describe the listed characteristics of a system • Define information system	• Discussion in groups • Illustration by the teacher	• Charts • Flash cards • Chalkboard • Computer • Books	• Computer studies by Onunga and Shah page 170	
6	**1**	SYSTEM DEVELOPMENT	Information system	By the end of the lesson, the learner should be able to • State the main purpose of an information system • Give reasons why information system is developed • State the role of information system analyst	• Discussion • Illustrations by the teacher • Question and answer	• Charts • Flash cards • Computer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 95	
	2	SYSTEM DEVELOPMENT	Theories of system development	By the end of the lesson, the learner should be able to • Describe tradition approach • Describe rapid application development	• Discussions in groups • Illustration by the teacher	• Chalk board • Flash cards • Charts	• Computer studies by Onunga and Shah page 170	
	3-4		Theories of system development	By the end of the lesson, the learner should be able to • Describe the structured approach • Give examples of ways of information of gathering	• Discussions in groups • Illustration by the teacher	• Chalk board • Flash cards • Charts	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 97	
7	**1**		Stages of system	By the end of the lesson,	• Illustration by the	• Chalk board	• Longhorn	

		SYSTEM DEVELOPMENT	development	the learner should be able to • State and define all the stages of system development	teacher • Question and answer	• charts	Computer studies by Mburu and ChemwaBk 3 page 97	
	2	SYSTEM DEVELOPMENT	Stages of system development	By the end of the lesson, the learner should be able to • Give the methods used in information gathering • Describe interviews studying of available documents as used in information gathering	• Demonstration • Discussion	• Chalk board • Charts	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 100-104 • Computer studies by Onunga and Shah page 175	
	3-4	SYSTEM DEVELOPMENT	Stages of system development	By the end of the lesson, the learner should be able to • Prepare a questionnaire • Prepare and present a fait finding report • Describe how automated methods are used	• Discussions in groups • Question and answer • Illustration by the teacher	• Sample questionnaire • Chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 104	
8	**1**	SYSTEM DEVELOPMENT	Requirements specification	By the end of the lesson, the learner should be able to • Describe output specification • Describe input specification	• Discussions • Question and answer	• Chalkboard • Charts	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 105	
		SYSTEM DEVELOPMENT	Requirements specification	By the end of the lesson, the learner should be able to • Describe file/data stores	• Discussions • Question and answer	• Chalkboard • Charts	• Longhorn Computer studies by Mburu and	

				• Describe hardware and software requirements			ChemwaBk 3 page 109	
		SYSTEM DEVELOPMENT	System design	By the end of the lesson, the learner should be able to • Define system flowchart • Identify common flowchart symbols	• Discussions • Question and answer	• Chalkboard • Charts	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 109	
9	**1**	SYSTEM DEVELOPMENT	Designing a system flowchart	By the end of the lesson, the learner should be able to • Identify guidelines fro designing system flowcharts • Write a system flowchart using a case study	• Discussions • Question and answer • Illustration by the teacher	• Charts • Chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 110	
	2		Designing a system flowchart	By the end of the lesson, the learner should be able to • Write a simple book borrowing module flowchart • Write cleaners information system flowchart	• Illustration by the teacher • Discussion in groups	• Charts • Chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 110	
	3-4		Designing a system flowchart	By the end of the lesson, the learner should be able to • Write a sample library books management system flowchart • Use data flow diagrams	• Question and answer • Discussion in groups	• Chalkboard • chart	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 110	
10	**1**	SYSTEM DEVELOPMENT	System Construction	By the end of the lesson, the learner should be able to	• Question and answer • Discussion in	• Charts • Chalkboard • Information	• Longhorn Computer	

				• Define the term system construction • Identify number of technique that can be used to construct a designed system	groups	system (Cleaner)	studies by Mburu and ChemwaBk 3 page 110	
	2		System Implementation	By the end of the lesson, the learner should be able to • Define system implementation and file conversion • Describe factors considered during file conversion	• Illustrations by the teacher • discussion	• Charts • chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 116	
	3-4		Change over strategies	By the end of the lesson, the learner should be able to • Define the term changeover • List the system change over strategies • Describe three listed changeover strategies	• Discussions • Question and answer	• Flash card • Charts • chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 116	
11	**1**		System maintenance and revision	By the end of the lesson, the learner should be able to • Define system maintenance • Define system review • Describe security control measures	• Illustration by the teacher • Question and answer	• Charts • Flash cards	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 116	
	2		System documentation	By the end of the lesson, the learner should be able to • Write a report on case study	• Illustration by the teacher • Question and answer	• Charts • Flash cards	• Longhorn Computer studies by Mburu and	

							ChemwaBk 3 page 117	
	3-4		System documentation	By the end of the lesson, the learner should be able to • Develop a system using a case study	• Illustration by the teacher • Discussions	• A chart • Computer • Printer • Chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 117	
12	**1**		System documentation	By the end of the lesson, the learner should be able to • Identify comprehensive system documentation details • Write a report on the case study	• Discussions • Question and answer	• Charts • Computer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 118-120	
	2,3 & 4		**PRACTICALS**					
END OF TERM EXAMINATION								

COMPUTER FORM 3 SCHEMES OF WORK – TERM 3

WEEK	**LESSON**	**TOPIC**	**SUB - TOPIC**	**OBJECTIVES**	**LEARNING/TEACHING ACTIVITIES**	**LEARNING/TEACHING RESOURCES**	**REFERENCES**	**REMARKS**
1	**1**	PROGRAMMING WITH VISUAL AIDS	Definition	By the end of the lesson, the learner should be able to • Define the term visual basic • Start up visual basic • Identify features of visual basic	• Demonstration by the teacher • Discussions • Question and answer	• Chalkboard • Computer • chart	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 122	

	2	PROGRAMMING	Visual basic toolbox	Bythe end of the lesson, the learner should be able to • Identify parts of the visual basic tool box • Describe parts of the visual basic toolbox	• Demonstration • Question and answer	• Chalkboard • Photograph • computer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 123	
	3-4		Saving a visual project	By the end of the lesson, the learner should be able to • Save a visual basic project • Open an existing visual basic project	• Demonstration by the teacher • Question and answer • Practical	• Computer • Chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 123	
2	**1**		Visual basic fundamental concepts	By the end of the lesson, the learner should be able to • Identify the visual basic fundamental concepts • Describe the listed fundamental concepts	• Discussions • Questions and answer	• Chalkboard • Charts • Computer • Simple calculators	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 136	
	2		Mathematical operators	By the end of the lesson, the learner should be able to • Identify mathematical operators • Describe the listed mathematical operators	• Discussions • Question and answers	• Chalkboard • Charts • Computer • Simple calculators	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 137	
	3-4		Numeric strings and values	By the end of the lesson, the learner should be able to • convert a numeric string to a value • Convert a value to a string	• Illustrations by the teacher • Discussions • Question and answer	• Charts • computer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 137	

3	**1**		Project developments	By the end of the lesson, the learner should be able to • Create a program used to calculate the area of a rectangle	• Discussion in groups • Illustrations by the teacher	• Charts • Computer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 145	
	2		Project developments	By the end of the lesson, the learner should be able to • Write a program used to find roots of a quadratic expression	• Discussion in groups • Illustrations by the teacher	• Charts • Computer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 147	
	3-4		Case construct Looping construct	By the end of this lesson, the learner should be able to • Use case statement that can display the name of a weekday when its number is provided • Write a program using do-loop • Write a program using FOR-NEXT LOOP	• Demonstration by the teacher • Discussion • Question and answer	• Chart • Chalkboard • Computer • printer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 147	
4	**1**		Working with graphical objects	By the end of the lesson, the learner should be able to • Insert a picture using picture box • Define module and procedure • Declare general subroutines	• Demonstration • Question and answer • discussion	• chart • computer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 150	
	2		Working with graphical objects	By the end of the lesson, the learner should be able to	• Demonstration • Question and answer	• computer • printer • chart	• Longhorn Computer	

				• Write a general subroutine that solves $y= x^n$ given that the value of n are integers	• practical	• chalkboard	studies by Mburu and ChemwaBk 3 page 151	
	3-4		Creating means and dialog boxes	By the end of the lesson, the learner should be able to • Create a dropdown menu • Create a message and dialog boxes	• Demonstration • Discussions • Question and answers	• computer • printer • chart • chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 151	
	1		List boxes and control boxes	By the end of the lesson, the learner should be able to • Define list box and combo box • Create a list box and a combo box • Create a project that loads a list of items	• Discussion • Demonstration • Practical	• Chart • Photograph • Computer • chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 161	
5	**2**		Visual basic data structures	By the end of the lesson, the learner should be able to • Define the term arrays • Declare an array	• Discussion • Demonstration • Practical	• Chart • Photograph • Computer • chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 163	
	3-4		Visual basic data structures	By the end of the lesson, the learner should be able to • Declare two dimensional arrays • Write array of records	• Discussion • Demonstration • Practical	• Chart • Photograph • Computer • chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 161	
6	**1**		Data files	By the end of the lesson, the learner should be able	• Demonstration • Practical	• Chart • Computer	• Longhorn Computer	

				to • Define a file • Identify types of files recognized by visual basic • Link visual basic to data base	• Discussion	• chalkboard	studies by Mburu and ChemwaBk 3 page 187-189	
	2	INTRODUCTIO N TO DATA BASE DESIGN	Definition	By the end of the lesson, the learner should be able to • Define database • Identify relationships in database	• Demonstration • Practical • Discussion	• Chart • Computer • chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 187-189	
	3-4		Defining attributes	By the end of the lesson, the learner should be able to • Define a foreign key • Distinguish between an entity and attributes • Create one to many relationships	• Question and answer • Practical • Demonstration • discussions	• computer • chart • chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 203-204	
7	**1**		File table structure	By the end of the lesson, the learner should be able to • Create a table • Set primary key and foreign key	• Demonstration • Discussion • Practical	• Computer • Chart • Chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 217	
	2		Enforcing Referential integrity	By the end of the lesson, the learner should be able to • Enforce referential integrity between tables • Normalize table	• Demonstration • Discussion • Practical	• Computer • Chart • Chalkboard	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 217	
	3-4		Forms and commands	By the end of the lesson, the learner should be able to	• Discussion in groups • Demonstration	• Computer • Chart • Chalkboard	• Longhorn Computer studies by	

				• Create a form/ interface • Call for commands	• Practical • Question and answer		Mburu and ChemwaBk 3 page 21o	
8	**1**		Creating reports	By the end of the lesson, the learner should be able to • Describe the tools used to automate database • Create a switchboard	• Discussion in groups • Demonstration • Practical • Question and answer	• Chart • computer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 211	
	2		Automating database	By the end of the lesson, the learner should be able to • Describe the tools used to automate database • Create a switchboard	• Discussion in groups • Demonstration • Practical • Question and answer	• Chart • computer	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 212	
	3-4		Automating database	By the end of the lesson, the learner should be able to • Create macros • Develop a system using a case study	• Demonstration • Assignment	• Computer • Chart	• Longhorn Computer studies by Mburu and ChemwaBk 3 page 212	
REVISION AND END TERM EXAMS								

COMPUTER STUDIES FORM 4 SCHEMES OF WORK – TERM 1								
WEEK	**LESSON**	**TOPIC**	**SUB - TOPIC**	**OBJECTIVES**	**LEARNING/TEACHING ACTIVITIES**	**LEARNING/TEACHING RESOURCES**	**REFERENCES**	**REMARKS**
1	Reporting from home and settling for the first term							
2	**1**		Definition of networking terms	By the end of the lesson, the learner should be able to • Define the term computer network • Explain the term data communication	• Q/A discussion	• Newspaper • Letters • books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 1-5 • Computer studies by Onunga& Rena Shah Bk 4 page 1-5	
	2-3		Networking	By the end of the lesson, the learner should be able to • Explain the types of computer n/w • Discuss the purpose of n/w	• Q/A demonstration practical	• Handouts • Books • Internet • Working Pc	• Longhorn Computer studies by S.Mburu and C. Chemwa page 5-9 • Computer studies by Onunga& Rena Shah Bk 4 page 6	
	4			By the end of the lesson, the learner should be able to • Explain the demerits of n/w	• Q/A demonstration practical	• Twisted cables • Internet 5 • Working pc	• Longhorn Computer studies by S.Mburu and C. Chemwa page 10-17 • Computer studies by Onunga& Rena Shah Bk 4 page 6	
3	**1**		Elements of networking	By the end of the lesson, the learner should be able to • Discuss communication with cables	• Q/A demonstration practical	• Handouts • Books • Internet • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page 17-22 • Computer studies by Onunga& Rena Shah Bk 4 page 9-11	

	2-3		Elements of networking	By the end of the lesson, the learner should be able to • Explain the types of wireless communication	• Q/A demonstration practical	• Books • Internet • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page 23-28 • Computer studies by Onunga& Rena Shah Bk 4 page 17-22	
4	**1**		Communication Devices	By the end of the lesson, the learner should be able to • Define the term communication devices • Explain the work of: Modems, network cards, hubs	• Q/A demonstration practical	• Letters • Software • Working Pc	• Longhorn Computer studies by S.Mburu and C. Chemwa page 30-33 • Computer studies by Onunga& Rena Shah Bk 4 page 20	
	2-3		Network Software	By the end of the lesson, the learner should be able to • Discuss the different network s/w: O/S, protocols	• Q/A demonstration practical	• Handouts • Books • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page 30-31	
	4		Types of computer networks	By the end of the lesson, the learner should be able to • Discuss the three types of computer networks LAN,MAN, WAN	• Q/A demonstration practical	• Internet • Books • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page 4-5 • Computer studies by Onunga& Rena Shah Bk 4 page 22	
5	**1**		Network topologies	By the end of the lesson, the learner should be able to • Define the term	Q/A demonstration practical	• Internet • Books • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page	

				network topology • Differentiate btw. Logical and physical topologies			33-34 • Computer studies by Onunga& Rena Shah Bk 4 page 16	
	2-3		Network Topologies	By the end of the lesson, the learner should be able to • Define the term network topology • Differentiate between Logical and physical topologies • Explain a star topology	• Q/A demonstration practical	• Internet • Books • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page 35-36 • Computer studies by Onunga& Rena Shah Bk 4 page 18	
	4		Network Topologies	By the end of the lesson the learner should be able to • Explain a Mesh Topology Tree Topology	• Q/A demonstration practical	• Working PC • Handouts	• Longhorn Computer studies by S.Mburu and C. Chemwa page 37-38 • Computer studies by Onunga& Rena Shah Bk 4 page 19	
2. APPLICATION AREAS OF NFORMATION AND COMMUNICATION TECHNOLOGY								
6	**1**		Application areas of ICT	By the end of the lesson, the learner should be able to • Explain Application areas of ICT • Financial system	• Q/A demonstration practical	• Internet • Books • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page 37-39 • Computer studies by Onunga& Rena Shah Bk 4 page 27	
	2-3		Application areas of ICT	By the end of the lesson, the learner should be able	• Q/A demonstration practical	• Internet • Books	• Longhorn Computer	

				to • Explain application areas of ICT in common system		• Working PC	studies by S.Mburu and C. Chemwa page 40-41 • Computer studies by Onunga& Rena Shah Bk 4 page 27	
	4		Application of ICT	By the end of the lesson, the learner should be able to • Explain application areas of ICT in retail system • Explain application areas of ICT in Reservation system	Q/A demonstration practical	• Internet • Books • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page 40-59 • Computer studies by Onunga& Rena Shah Bk 4 page 28	
7	**1**		Application areas of ICT	By the end of the lesson, the learner should be able to • Explain Application areas of ICT in Education	• Q/A demonstration practical	• Internet • Books • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page 41-58 • Computer studies by Onunga& Rena Shah Bk 4 page 49	
	2-3		Application areas of ICT	By the end of the lesson, the learner should be able to • Explain Application of ICT in Education System	• Q/A demonstration practical	• Internet • Books • Working	• Longhorn Computer studies by S.Mburu and C. Chemwa page 41-58	

							• Computer studies by Onunga& Rena Shah Bk 4 page 50	
	4		Application areas of ICT	By the end of the lesson, the learner should be able to • Explain Application areas of ICT in industrial System	• Q/A demonstration practical	• Internet • Books • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page 41-58 • Computer studies by Onunga& Rena Shah Bk 4 page 39	
8	**Half Term**							
9	**1**		Application areas of ICT	By the end of the lesson, the learner should be able to • Explain application areas of ICT in entertainment and virtual reality	• Q/A demonstration practical	• Internet • Books • Working Pc	• Longhorn Computer studies by S.Mburu and C. Chemwa page 61,64-65 • Computer studies by Onunga& Rena Shah Bk 4 page 51/55	
	2-3		Application areas of ICT	By the end of the lesson, the learner should be able to • Explain application areas of ICT in marketing and law enforcement	• Q/A demonstration practical	• Internet • Books • Working Pc	• Longhorn Computer studies by S.Mburu and C. Chemwa page 63	
	4		Application areas of ICT	By the end of the lesson, the learner should be able	• Q/A Discussion	• Internet • Books	• Longhorn Computer	

				to • Explain application area of ICT in transportation system		• Working Pc	studies by S.Mburu and C. Chemwa page 44-46 • Computer studies by Onunga& Rena Shah Bk 4 page 47	
	1		Application areas of ICT	By the end of the lesson, the learner should be able to • Explain Application areas of ICT in Library System	• Q/A Discussion	• Internet • Books • Journals	• Longhorn Computer studies by S.Mburu and C. Chemwa page 44	
	IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGY ON SOCIETY							
10	**2-3**		Application areas of ICT in the society	By the end of the lesson, the learner should be able to • Discuss effects on (i) Employment (ii) Automated production	• Q/A demonstration practical	• Letters • Working PC • Newspapers	• Longhorn Computer studies by S.Mburu and C. Chemwa page 44	
	4		Impact of ICT in the society	By the end of the lesson, the learner should be able to • Discuss effects if ICT on work's health • State the characteristics of future trends in ICT • Discuss rapid evolution in ICT	• Q/A Discussion	• Handouts • Journals	• Longhorn Computer studies by S.Mburu and C. Chemwa page 44 • Computer studies by Onunga& Rena Shah Bk 4 page 60	
11	**1**		Impact of ICT in the society	By the end of the lesson, the learner should be able to • Discuss effects of	• Q/A Discussion	• Handouts • Journals • Videos • Photographs	• Longhorn Computer studies by S.Mburu and C.	

				ICT on (i) Environmental issues (ii) Cultural effects			Chemwa page 44 • Computer studies by Onunga& Rena Shah Bk 4 page 63	
	2-3		Evolution of computer systems	By the end of the lesson, the learner should be able to • Discuss Artificial intelligence	• Q/A Discussion	• Class Register • Accounts book • Journals	• Longhorn Computer studies by S.Mburu and C. Chemwa page 52-53 • Computer studies by Onunga& Rena Shah Bk 4 page 81	
	4		Evolution of Computer systems	By the end of the lesson, the learner should be able to • Explain expanded information superhighway	• Q/A Demonstration Practical	• handouts • class register • accounts	• Longhorn Computer studies by S.Mburu and C. Chemwa page 79-80	

COMPUTER FORM 4 SCHEMES OF WORK – TERM 2

CAREER OPPORTUNITIES IN ICT

WEEK	**LESSON**	**TOPIC**	**SUB - TOPIC**	**OBJECTIVES**	**LEARNING/TEACHING ACTIVITIES**	**LEARNING/TEACHING RESOURCES**	**REFERENCES**	**REMARKS**
	Reporting from home and settling for the first term work							

1								
2	**1**		Career opportunities in ICT	By the end of the lesson, the learner should be able to • Discuss the roles of a system analyst, a chief programmer	• Q/A Discussion	• Books • Journals	• Longhorn Computer studies by S.Mburu and C. Chemwa page 79 • Computer studies by Onunga& Rena Shah Bk 4 page 95	
	2-3		Career opportunities in ICT	By the end of the lesson, the learner should be able to • Discuss functions of computer programmer and d/b administrator	• Q/A Demonstration Practical	• Books • Handouts • Newspapers • Realia	• Longhorn Computer studies by S.Mburu and C. Chemwa page 81 • Computer studies by Onunga& Rena Shah Bk 4 page 97	
	4		Career Opportunities in ICT	By the end of the lesson, the learner should be able to • Discuss the functions of a s/w engineer and a computer engineer	• Q/A demonstration Practical	• Books • Working PC	• Longhorn Computer studies by S.Mburu and C. Chemwa page 80	
3	**1**		Career opportunities in ICT	By the end of the lesson, the learner should be able to • Discuss the function of a web designer, web administrator and computer operator	• Q/A demonstration Practical	• Books • Handouts • Journals	• Longhorn Computer studies by S.Mburu and C. Chemwa page 81	

	2-3		Career opportunities in ICT	By the end of the lesson, the learner should be able to • Discuss the function of computer technician and data processing manager	Learner to Q/A discussion	• Books • Realia	• Longhorn Computer studies by S.Mburu and C. Chemwa page 78	
	4		Career opportunities in ICT	By the end of the lesson, the learner should be able to • Discuss other educational opportunities in the various institutions	• Q/A Discussion	• Books • Newspapers	• Longhorn Computer studies by S.Mburu and C. Chemwa page 83-84	
4	**1**		Identification of further Educational opportunities	By the end of the lesson, the leaner should be able to • Explain the different courses offered in universities, polytechnics, middle level colleges	• Q/A Discussion	• Books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 83-84 • Computer studies by Onunga& Rena Shah Bk 4 page 106-110	
	2-3		Developing project using msaccess d/base Description of a given system	By the end of the lesson, the learner should be able to • Identify a problem • Definition of a problem	• Q/A discussion	• Books • Sampled projects	• Longhorn Computer studies by S.Mburu and C. Chemwa page 83-84 • Computer studies by Onunga& Rena Shah Bk 4 page 106-112	

	4		Fact finding	By the end of the lesson, the learner should be able to: • Identify the number of manual documents that are needed for the system given	• Q/A observation	• Books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 83-84 • Computer studies by Onunga& Rena Shah Bk 4 page 106-120	
5	**1**		Fact finding	By the end of the lesson, the learner should be able to • Design a sample interview guideline for the system given	• Q/A practical	• Sampled projects • Books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 83-84	
	2-3		Fact finding	By the end of the lesson, the learner should be ale to • Design a sample questionnaire for the system giver	• Q/A practical	• Sampeled projects • books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 93-94 • Computer studies by Onunga& Rena Shah Bk 4 page 122	
	4		System design • Preliminary design phase	By the end of the lesson, the learner should be able to • Identify the flowchart symbols • Design a simple flowchart for the system	• Q/A practical	• Sampled projects • Books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 94-95	

6	**1**		System design • Preliminary design phase	By the end of the lesson, the learner should be able to • Design a complex flowchart for the system	• Q/A practical	• Sampled projects • Books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 94-95	
	2-3		Detailed design	By the end of the lesson, the learner should be able to • Design the outputs for the system	Q/A practical	• Sampled projects • Books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 94-95	
	4		Detailed design	By the end of the lesson, the leaner should be able to • Design input interface for the system	• Q/A practical	• Sampled projects • Books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 96-100	
7	**1**		Files and data stores design	By the end of the lesson, the learner should be able to • Design a database	• Q/A practical	• Sampled projects • Books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 100-101	
	2-3		Creating relationships	By the end of the lesson, the learner should be able to • Create relationships	• Q/A practical	• Books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 103	
	4		Hardware and software requirements	By the end of the lesson, the learner should be able to • Identify h/w and s/w requirements for the system	• Q/A discussion	• Books • Realia	• Longhorn Computer studies by S.Mburu and C. Chemwa page 103	

9	**1,2, 3,4**		Constructing information management system given • Designing inputs	By the end of the lesson, the learner should be able to • Design inputs	• practical	• internet • sampled projects • books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 86-153	
10	**1,2, 3,4**		Designing outputs	By the end of the lesson, the learner should be able to • Design outputs	• practical	• books • internet • sampled projects	• Longhorn Computer studies by S.Mburu and C. Chemwa page 86-153	
11			• Designing	By the end of the lesson, the learner should be able to • Design various management systems	• practical	• Books	• Longhorn Computer studies by S.Mburu and C. Chemwa page 86-153	
12	**1,2, 3,4**	Writing end of term exams						
13	**The school closes**							

COMPUTER FORM 4 SCHEMES OF WORK – TERM 3

1	Reporting from home and settling for the third term work
2-3	POST MOCKS AND JOINTS
4-7	REVISION
7	K.C.S.E BEGINS