

FORMAT OF UNIT PLAN/SCHEME OF WORK

Academic year: 2021-2022

Term: First Term

School:

Subject: ICT

Subject leader's name:.....

Class: S1

Nº of period per week: 2

| DATES | UNIT TITLE | LESSON TITLE | Learning objectives + Key Unit competence | Teaching methods & techniques + Evaluation procedures | Resources & References | OBSERVATIONS |
|--------------------|----------------------------------|--|---|--|--|--------------|
| WEEK 1 11-15/10 | Unit 1: ICT FOUNDAT ION | INTRODUCTION <ul style="list-style-type: none"> ▪ Data: definition and types of data, data gathering, analog and digital. ▪ Information: definition, factors (accuracy, relevance, age, completeness, and presentation) ▪ Communication: definition, elements of communication, and types/ ways of communicating. ▪ Technology: definition, types of technologies | <ul style="list-style-type: none"> ➤ Explain ICT related concepts and terms. ➤ List ICT tools and their appropriate use in daily life. ➤ Enjoy using ICT and appreciate the benefits and effectiveness of different ICT tools ➤ Evaluate the advantages and disadvantages of ICT in society | <ul style="list-style-type: none"> ▪ In groups, Learners discuss different ICT concepts. ▪ Learners visit a computer laboratory, and other ICT activities around the school. ▪ Learners observe a video/documentary on the use of different ICT equipment in different organizations. • Teacher provides available ICT tools (radios, televisions, and telephones) and Learners utilize them and deduce their use in daily life. | <ul style="list-style-type: none"> ➤ ICT student book one. ➤ <i>Computers,</i> ➤ <i>CD/DVD,</i> ➤ <i>video player,</i> ➤ <i>projector</i> , ➤ <i>text book, and digital materials.</i> | |
| Week 2 18-22/10 | | ICT <ul style="list-style-type: none"> ▪ Definition of ICT ▪ ICT equipment: radio, TV, phones, tablets, ATMs (billing machines), satellites, projectors and | | | | |

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| | | <p>computers.</p> <ul style="list-style-type: none"> ▪ Use and interact with ICT equipment (radio, TV, phone, computers). | | Learners write an essay on the use of ICT in daily life using the available learning materials | | |
| Week 3 25-29/10 | | <p>IMPORTANCE OF ICT</p> <ul style="list-style-type: none"> ▪ General use of ICT in: education, health, business and communications. ▪ Advantages and disadvantages. ▪ Current use of ICT in Rwanda: education, health, business and communication. ▪ Evaluation | | | | |
| Key Unit Competency: Explain the foundation of Information and Communication Technology (ICT). | | | | | | |
| Week 4 01-05/11 | Unit 2: COMPUTER SYSTEMS | <p>Computer</p> <ul style="list-style-type: none"> ▪ Definition of a computer, functions of computers (input, processing, storage and output), and characters of computers. <p>Computer components:</p> <p>Hardware</p> <ul style="list-style-type: none"> ▪ Central processing unit (ALU, register and CU), and computer peripherals (input and output). ▪ Ports and connectors ▪ Storage (primary) | <ul style="list-style-type: none"> ▪ Explain computer related terms. ▪ Identify the different parts, functions and characteristics of a computer. • Identify different ports and connectors. ▪ Explain computer invention and its generations. | <ul style="list-style-type: none"> • In groups, learners discuss different computer concepts. • Learners observe physically and /or by video/digital content provided by the teacher on the different parts of a computer system. • Group discussion on the functions of the different parts of a computer. • Individual work on the functionality of | <ul style="list-style-type: none"> ➤ ICT student book one ➤ <i>Computers,</i> ➤ <i>video player,</i> ➤ <i>projector</i> , ➤ <i>the internet,</i> ➤ <i>text book,</i> <i>and</i> <i>digital materials.</i> | |

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| | | storage, secondary storage/mass storage and tertiary), and characteristics and measurement of storage | <ul style="list-style-type: none"> Identify advantages, disadvantages and areas where computers are used | <p>different devices that use firmware.</p> <ul style="list-style-type: none"> Learners plug and unplug different external hardware (computer peripherals) parts to their ports and connectors. | |
| Week 5 08-12/11 | | <p>Software</p> <ul style="list-style-type: none"> System software (operating system, utilities, programming languages, firmware, etc.). Application software (customized and off-the shelf software) The computer system (user, software, hardware and data). <p>Computer family</p> <ul style="list-style-type: none"> Microcomputer (definition, categories), minicomputer, mainframe, and supercomputer | | <ul style="list-style-type: none"> Teacher asks learners to write an essay on the use of computers in daily life using the available resources (text books, internet, digital content, etc.). | |
| Week 6 15-19/11 | | <p>History of computers (invention [Charles Babbage, ENIAC]).</p> <p>Generations of computers (valves, transistors, integrated circuits, microprocessors, and</p> | | <ul style="list-style-type: none"> In groups discuss the technologies used in different computer generations. Learners observe video/digital content | |

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| | | <p>artificial intelligence).</p> <p>Advantages and disadvantages of using a computer.</p> <p>Area of computer use (education, business, office work, entertainment, communication, media, storage, security, traffic control, medicine, and weather forecasting).</p> <ul style="list-style-type: none"> • Evaluation | | <p>provided by the teacher on generations and families of computers.</p> | | |
| <p>Key Unit Competency: Explain the evolution, categories, parts and role of computers</p> | | | | | | |
| <p>Week 7 22-26/11</p> | <p>Unit 3 : COMPUTER NAVIGATION</p> | <p>Desktop</p> <ul style="list-style-type: none"> ▪ Definition, desktop icons, taskbar (start button, task manager, system tray, quick launch), customize the desktop, taskbar. ▪ Explore and customize the start menu ▪ Recycle Bin(definition, role, send and restore file from the Recycle Bin). <p>Control panel</p> <ul style="list-style-type: none"> ▪ Desktop background and theme, mouse, pointer, desktop icon and gadgets, windows color, screen saver, screen resolution, date | <ul style="list-style-type: none"> • Recognize the desktop and taskbar elements. • Explain the role of saving files in folder. • Identify the process of managing files and folders. • State the purpose of the recycle bin and why deleted files are kept in recycle bin. <ul style="list-style-type: none"> ▪ Explore and customize the desktop, taskbar and start menu. Restore deleted files and folders. <p>Use the control panel to</p> | <ul style="list-style-type: none"> • Individually or in pairs, learners add items to the start menu, add elements to the quick launch of the taskbar, send programs to the desktop as shortcuts, set the time and date, change the desktop background, change the windows colors, set the screen resolution, and change the mouse pointer and keyboard layout. • Individually or in | <ul style="list-style-type: none"> ➤ ICT student book one ➤ <i>Computers,</i> ➤ <i>video player,</i> ➤ <i>projector,</i> ➤ <i>the internet,</i> ➤ <i>and text books</i> | |

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| | | and time, and keyboard layout | customize the working environment. Navigate window and manage files and folder hierarchically correctly. Adjust the computer working environment properly. Be aware of deleting files and folders. | pairs, learners create a folder hierarchy and move folders using different techniques as indicated by the teacher. <ul style="list-style-type: none">• Learners create files through the notepad, choose an appropriate name for the file and save it to a defined location as directed by the teacher. Learners | | |
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| <p>WEEK 8 29/11- 03/12</p> | | <p>Windows:</p> <ul style="list-style-type: none"> ▪ Definition, types of windows, (application window, and document window), window control buttons, common windows accessories (windows explore, calculator, games, and paint). <p>Folder</p> <ul style="list-style-type: none"> ▪ Create, rename, cut and paste, copy and paste, drag and delete. <p>File</p> <ul style="list-style-type: none"> ▪ Create, save, rename, open, delete, cut and paste, copy and paste <ul style="list-style-type: none"> ▪ Evaluation | | <p>list them with different views.</p> <ul style="list-style-type: none"> • Learners delete and restore files and folders from the recycle bin. • Learners use calculators and enhance the use of the mouse and keyboard by playing games, using paint and using typing software (tux typing). • Learners connect or insert storage devices to the computer. • Save and retrieve files and folders on or from different secondary storage devices. | | |
| <p>Key Unit Competency: Navigate the Windows environment and work with Windows explorer to introduce the techniques of folder and file management.</p> | | | | | | |

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| Week 9 6-10/12 | | REVISION | | | | |
| Week 10 13-17/12 | | EXAMINATION PERIOD | | | | |
| Week 11 20-24/12 | | MARKING AND REPORT | | | | |

FORMAT OF UNIT PLAN/SCHEME OF WORK

District: RUSIZI

Academic year: 2021-2022

Term: Second Term

School:

Subject: ICT

Teacher:

Class: S1

Nº of period per week: 2

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| <p>Week 1 10-14/01</p> | <p>UNIT 4: SAFE, SECURE AND ETHICAL USE OF COMPUTERS</p> | <p style="text-align: center;">Safe Lab procedure</p> <ul style="list-style-type: none"> ▪ General safety and health safety, electrical safety, fire safety, proper use of cleaning tools and fire extinguishers | <ul style="list-style-type: none"> • Identify and follow the basic safety guidelines to prevent cuts, burns, electrical shocks, and damage to eyesight, when using computers. • Observe and apply the correct safety and security procedures when using ICT | <ul style="list-style-type: none"> • The teacher helps learners to practice computer safety. • The teacher assists learners to sit properly in front of the computer. • General safety: teachers assist learners to | <ul style="list-style-type: none"> ➤ Computer laboratory, ➤ projector, ➤ the internet, ➤ cleaning tools, ➤ Detergent liquid, and textbooks. ➤ ICT student book one | |
| <p>Week2 17-21/01</p> | | <p style="text-align: center;">Maintaining your computer</p> <ul style="list-style-type: none"> ▪ General precautions, power connectivity, and precautions for connecting the mouse, keyboard and other external peripherals. | | | | |

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| | | | | <p>switch off computers before turning off the main power source.</p> <ul style="list-style-type: none"> • Learners use detergent liquids to clean monitor. • Learners discuss why water and food are prohibited in a computer environment. | | |
| Week 3 24-28/01 | | <p>Maintenance precautions</p> <ul style="list-style-type: none"> ▪ System unit, monitor, keyboard, and mouse ▪ Evaluation | | | | |
| Key Unit Competency: Maintain a computer in good working condition and use it safely, securely and ethically. | | | | | | |
| Week 4 31/01-4/02 | UNIT 5: WORD PROCESSING BASICS I | <p>Word processing</p> <ul style="list-style-type: none"> ▪ Definition and role of word processing applications. ▪ Starting word processing applications. <p>Word processing environment</p> <ul style="list-style-type: none"> ▪ Title bar, tabs, menus, | <ul style="list-style-type: none"> • Identify the basic features of a word processing environment. • Explain the role of word processing applications. | <ul style="list-style-type: none"> • In a computer lab, learners create, rename, save and open a document. • Learners are | <ul style="list-style-type: none"> ➤ <i>Computers,</i> ➤ <i>projector,</i> ➤ <i>soft documents and hard copies,</i> ➤ <i>text books, and the internet</i> ➤ <i>ICT student</i> | |

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| | | <p>tool bars, scroll bars, ruler, and status</p> | <ul style="list-style-type: none"> • State the steps used to create, rename, save and open a document. • Explain how written text should be organized. • Recognize errors in a document and identify the appropriate proofing features to correct the errors. • Explore the environment of word processing applications. • Use the basic features of word processing (create, rename, save and open a new document). • Organize | <p>given written exercises to label elements of a word processing environment-screenshots.</p> <ul style="list-style-type: none"> • Practical exercises on a given text and perform the following: selection, basic text, indents and lists formatting, moving text, indents and lists. • Learners perform spelling and grammar checks and use the thesaurus feature to correct errors in a | <p><i>book one.</i></p> | |
| <p>Week 5 7-11/02</p> | <p>Working with documents</p> <ul style="list-style-type: none"> ▪ Create, save, open and renaming existing document, bar, working zone/area. <p>Text selection</p> <ul style="list-style-type: none"> ▪ Select a character, word, sentence, paragraph, and the whole document. | | | | | |
| <p>Week 6 14-18/02</p> | <p>Basic text formatting</p> <ul style="list-style-type: none"> ▪ Font (color, size, bold, italic, underline, face, and change case). ▪ Paragraph(indents, spacing and lists, alignment, borders and shading, and sorting). | | | | | |
| <p>Week 7 21-25/02</p> | <p>Proofing features</p> <ul style="list-style-type: none"> ▪ Spelling and grammar check and thesaurus. <p>Move a section of text and move through the text</p> <ul style="list-style-type: none"> ▪ Cut, copy and paste text. ▪ Move through the document using key board shortcuts(ctrl+ home, Ctrl+ end, End, home, Page up, page down). | | | | | |
| <p>Week 8 28/02-</p> | <ul style="list-style-type: none"> ▪ Scrolling through the text, deleting text, undo, | | | | | |

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| 4/03 | | redo change, and find and replace. ▪ Evaluation | written text. • Apply different methods to move text and move through the text (use of shortcuts). | document. | | |
| Week 9 7-11/03 | UNIT 6: WORD PROCESSING BASICS II | Manipulating document ▪ Page setup (setting margins, orientation, page border, and background, watermarks) | Use formatting tools to improve the presentation of a document. | | ➤ <i>Computers,</i> ➤ <i>projector,</i> ➤ <i>soft documents and their hard copies.</i> | |
| | | Proofing features ▪ Track changes, adding comments, and word count | • Use proofing the features of spell, and grammar checks and the thesaurus to correct errors in a document. | | ➤ <i>text books, and the internet</i> ➤ <i>ICT student book one</i> | |
| | | Columns and breaks ▪ Insert columns ▪ Breaks(page, column, text wrapping, nest page and continuous). | | | | |
| | | Formatting text ▪ Styles (headings, create style, apply a style and clear formatting ▪ Nested lists (bullets and numbering ▪ Drop caps ▪ Headers and footers, and page numbers ▪ Evaluation | | | | |
| Key Unit Competency: Create and manipulate a document using basic word processing features. | | | | | | |
| Week 10 14-18/03 | | REVISION | | | | |

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| Week 11 21-25/03 | | EXAMINATION PERIOD |
| Week 12 28-31/03 | | MARKING AND REPORT |

FORMAT OF UNIT PLAN/SCHEME OF WORK

District: RUSIZI

Academic year: 2021-2022

Term: Third Term

School:

Subject: ICT

Teacher:

Class: S1

Nº of period per week: 2

| DATES | UNIT TITLE | LESSON TITLE | Learning objectives + Key Unit competence | Teaching methods & techniques + Evaluation procedures | Resources & References | OBSERVATIONS |
|------------------------|----------------------------|---|--|---|---|--------------|
| WEEK 1 18- 22/04 | UNIT 7: GIS AND MAPS | Define terms and concepts of GIS <ul style="list-style-type: none"> ▪ Java edition (AEJEE), Post GIS, and Arc Explore. ▪ GIS, ArcGIS Desktop (Arc Map) | <ul style="list-style-type: none"> • Understand the basic concepts of GIS. • Identify different elements of the interface of an Arc Map. • Know how to work with maps in a GIS environment. • Know and understand how to use different navigation tools. • Know how to identify a location using a query on a map. • Explain GIS related terms appropriately. • Explore the Arc Map | <p>Through teacher guidelines and electronic content</p> <ul style="list-style-type: none"> • Learners identify and name different elements of the Arc Map interface. • Learners open Arc Map and browse, save, and close an existing map. • Individually or in groups, | <ul style="list-style-type: none"> ➤ Computers, ➤ projector, ➤ text books, ➤ interactive board ➤ and ArcGIS desktop. ➤ ICT student book one | |
| Week 2 25- 29/04 | | The interface of of Arc Map <ul style="list-style-type: none"> ▪ Table of contents (TOC), menu bar, status bar, main window, and toolbars. ▪ File handling with Arc Map. ▪ Open an existing map, save and close a map, and browse an existing map | | | | |

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| <p>Week 3 2-6/05</p> | | <p>Navigation tools</p> <ul style="list-style-type: none"> ▪ Zoom in/out, fixe zoom in/out, zoom to full extent, zoom to previous/next extent, pane, and spatial bookmark | <p>environment.</p> <ul style="list-style-type: none"> • Navigate a map and show a certain section of a map in different scales. • Query a map and organize map layers | <p>learners use navigation tools to explore a map.</p> <ul style="list-style-type: none"> • Learners query a map using the identify and find tools. | | |
| | | <ul style="list-style-type: none"> ▪ Turn off/on a layer, order layers, add/remove layer, and rename a layer ▪ Evaluation | | | | |
| <p>Key Unit Competencies: Define and recognize basic features of GIS. Differentiate the elements/components of the interface of the GIS application.</p> <ul style="list-style-type: none"> • Query a map and organize map layers. | | | | | | |
| <p>Week 4 9-13/05</p> | <p>UNIT 8: NETWORK AND INTERNET FUNDAMEN TALS</p> | <p>Computer network concepts</p> <ul style="list-style-type: none"> ▪ Definition of network ▪ Definition of computer network ▪ Characteristics of computer network ▪ Role of computer network ▪ Advantages and disadvantages of computer network ▪ Classification of computer network according geographical area | <ul style="list-style-type: none"> ▪ Explain network and computer network terms. ▪ Explain the role, and advantages and disadvantages of a computer network. ▪ Identify the common types of computer networks according to geographical areas. Define the internet and | <ul style="list-style-type: none"> • In groups discuss the uses of a computer network and terminologies. • The teacher helps learners to classify computer networks according to geographical areas. | <ul style="list-style-type: none"> ➤ <i>Computers,</i> ➤ <i>servers,</i> ➤ <i>radio waves,</i> ➤ <i>internet connectivity,</i> ➤ <i>routers,</i> ➤ <i>switches,</i> ➤ <i>transmission data cables,</i> ➤ <i>projector,</i> ➤ <i>and ICT student book one</i> | |

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| | | (PAN, LAN, MAN, and WAN) | world wide web(www). | <ul style="list-style-type: none"> • In small groups, directed by the teacher, learners conduct research using search engines. • Teacher facilitates the creation of email accounts for each learner. | | |
| Week 5 18-20/05 | | Internet concepts: <ul style="list-style-type: none"> ▪ Definition of: internet, worldwide web (www), web page, web site, URL, and ISP | <ul style="list-style-type: none"> • Identify a webpage, web site, web browser, URL, and ISP. • Explain the importance of using the internet in daily life. • Identify different methods used to connect to the internet. | | | |
| Week 6 23-27/05 | | History of the internet <ul style="list-style-type: none"> ▪ Use of the internet in daily life ▪ Methods/ways to connect to the internet (dial up, broadband, Wi-Fi) ▪ Getting online (web browser, basic parts of a browser, and web address. | <ul style="list-style-type: none"> • Explain the different types of search engines. • Identify and decipher search results on information from the internet. ▪ Define and identify the advantage and disadvantages of using email | | | |
| Week 7 30/05-6/06 | | Search engines <ul style="list-style-type: none"> ▪ Definition of search engine ▪ Advantages and disadvantages of search engines ▪ List of search engines (Google, yahoo, and Wikipedia) ▪ Deciphering search results | | | | |

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| <p>Week 8 6-10/06</p> | | <p>Electronic mail (E-mail)</p> <ul style="list-style-type: none"> ▪ Definition of email ▪ Email address ▪ Advantages and disadvantages of email ▪ Creation of an email account, send and receive email messages, organize email messages, set up an address book ▪ Upload (attach) to download a file from an email ▪ Evaluation | | | | |
| <p>Key Unit Competency: Understand the rationale of a computer network and use the internet efficiently and effectively.</p> | | | | | | |
| <p>Week 9 13-17/06</p> | <p>UNIT 9: MUSIC SPRITE PROGRAMMING</p> | <p>Create/import sprite</p> <ul style="list-style-type: none"> ▪ Create a new sprite or import the existing image ▪ Use combo blocks to play sounds ▪ Choose the sprite especially from those from the things folder ▪ Manipulation of variables to program switch on and switch off | <ul style="list-style-type: none"> • Associate different commands to develop music. • Identify different tools in scratch that enable us to produce a melody. • Apply scratch instructions to switch on/off music. • Describe and apply different components of a scratch window to create a sound clip using audacity. • Create a music sprite. | <p>Individual work on producing music sprite.</p> <p>In group learners discuss how to associate commands and produce nice music.</p> <p>Practice how to use combo blocks, play sound, until, and switch on/off.</p> <p>Practice on setting</p> | <ul style="list-style-type: none"> ➤ <i>Scratch editor,</i> ➤ <i>internet connection,</i> ➤ <i>digital material,</i> ➤ <i>projector,</i> ➤ <i>and computer.</i> | |

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| | | <ul style="list-style-type: none"> ▪ Manipulation of: change switch by, set switch to, forever, forever...if | <ul style="list-style-type: none"> • Move the music loop to the music sprite. • Turning music on and off. | volume, notes, etc. | | |
| Week 10 20-24/06 | | <p>Create a tune using the sound Tool Kit</p> <ul style="list-style-type: none"> ▪ To add a music script to a sprite: using play sound/play sound...until, play drum, rest for, set instruction, play note, set volume to, change volume by, etc ▪ Create a sound clip using Audacity ▪ Create a song using sound Tool Kit ▪ Evaluation | <ul style="list-style-type: none"> • Create a tune/melody using the sound tool kit. • Create a sound clip using audacity. • Conceptualize the ICT contribution to real life especially in the field of music. • Express the desire to produce more melodies using scratch commands. • Pay attention on how to use commands and to produce music. | | | |
| Key Unit Competency: To be able to create a music sprite and add music with scratch and audacity. | | | | | | |
| Week 11 27/06-1/07 | | | REVISION | | | |
| Week 12 4-7/07 | | | EXAMINATION PERIOD | | | |
| Week 13 11-15/07 | | | MARKING AND REPORT | | | |