

FORMAT OF UNIT PLAN/SCHEME OF WORK

Academic year: 2021-2022

Term: First Term

School:

Subject: ICT

Subject leader's name:.....

Class: S2

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: DATA PROTECTION | <p>Protect the computer (user privileges)</p> <ul style="list-style-type: none"> Setting password and user's privilege (administrator and guest) <p>Harmful programs</p> <ul style="list-style-type: none"> Define a harmful program, and categories of harmful programs (virus, worms, spyware, Trojans, root kit, malware, etc.) <p>Source of viruses</p> <ul style="list-style-type: none"> Internet Storage devices(media) | <ul style="list-style-type: none"> Describe computer user privileges. State and identify harmful programs. Identify the source of computer viruses. Identify the role of antivirus and anti-spyware. Create and use computer user accounts. Distinguish different harmful programs. Scan external storage devices before connecting them to the | <ul style="list-style-type: none"> Learners create administrator and guest accounts on the computer and set a password. In groups, learners discuss the role of different accounts and password for private and school computers. Learners research the types and source of viruses, their prevention and | <ul style="list-style-type: none"> ➢ Computers , ➢ projector, ➢ external storages, ➢ storage devices, ➢ the internet, ➢ and ICT student book | |
| Week 2 18-22/10 | | Measures to prevent harmful programs | | | | |
| | | <ul style="list-style-type: none"> Install antivirus programs | | | | |

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| | | <ul style="list-style-type: none"> ▪ Avoiding connecting the computer to non-scanned storage device, and avoiding connecting via the browser to non-secure web sites ▪ Apply common preventive, procedures(antivirus scan, cleaning agents, spyware and antispyware, backup and restore, and compressing files) ▪ Evaluation | <ul style="list-style-type: none"> computer. • Use the appropriate computer user privileges to prevent the spread of computer viruses. | <ul style="list-style-type: none"> make a presentation. • Learners update antivirus and use it to scan the computer and storages. | | |
| Key Unit Competency: Use computers safely and securely to ensure that data is protected. | | | | | | |
| Week 3 25-29/10 | UNIT 2: ICT IN FINANCIAL TRANSACTIONS | The role of computer in financial transaction <ul style="list-style-type: none"> ▪ Automated operations, record keeping, and the stock exchange Impact of financial technologies in society <p>Positive</p> <ul style="list-style-type: none"> ▪ Quick service delivery ▪ Security in transactions ▪ Unlimited access to the user's bank account ▪ Automated billing | <ul style="list-style-type: none"> • Explain the importance of using computers in financial transactions. • Know about the different technologies in financial transactions. • State and understand the impact of different technologies in financial | <ul style="list-style-type: none"> • In small groups the teacher helps learners to determine the role of computer use in society. • Individuals work (research) and present on different technologies and their | <ul style="list-style-type: none"> ➤ Computer s, ➤ projector, ➤ ICT student book one, ➤ internet, ➤ ATM simulator, ➤ ATM(visit), ➤ automated billing machine, ➤ and credit | |

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| <p>Week 4 1-5/11</p> | | <ul style="list-style-type: none"> ▪ Replacement of people through automation ▪ Job opportunities ▪ Communication networks ▪ Security ▪ Reduce payroll expenses ▪ Increase revenue to country ▪ Solution to bank services problems | <p>transactions.</p> <ul style="list-style-type: none"> • Explain the importance of computer transactions. • Evaluate the role of different technologies in financial transactions. • Analyze and Criticize the impact of different technologies in financial transactions. • Use ATMs and telephones for financial transactions. | <p>use in financial transactions .</p> <ul style="list-style-type: none"> • In small groups, the teacher helps learners to determine the impact of technologies and their use in financial transactions . • Learners visit the nearest bank and ATM and the teacher assist the learners to show them the functionalities. • In groups, learners are given | <p><i>cards and debit cards.</i></p> | |
| <p>Week 5 8-12/11</p> | | <p>Negative</p> <ul style="list-style-type: none"> ▪ Fraud using computing tools ▪ Unemployment for some fields <p>Technology in financial transaction e-commerce</p> <ul style="list-style-type: none"> ▪ Process of buying and selling on the internet(using credit card in online shops). <p>ATMs</p> <ul style="list-style-type: none"> ▪ The process of accessing, depositing | | | | |

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| | <p>and checking the balance of an account using debit card</p> <p>Mobile banking</p> <ul style="list-style-type: none">▪ Process of loading money on a mobile phone account, making life easier, sending and receiving money, and the security of using mobile money.▪ Evaluation | | <p>telephones and do exercises in managing money, paying and buying items (airtime, electricity, water, goods, TV subscription, etc.).</p> <p>Learners observe and use billing machines to record items and generate bills for a given request.</p> | |
| <p>Key Unit Competency: Analyze and criticize the role and impact of computing tools in financial transactions. Use computing tools in financial transactions.</p> | | | | |

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| <p>Week 6 15-19/11</p> | <p>UNIT3: Object in a document</p> | <p>Objects: insert and format text boxes</p> <ul style="list-style-type: none"> ▪ Insert a text box, format a text box, modify colors and lines, and apply fill effects <p>Adding shapes</p> <ul style="list-style-type: none"> ▪ Insert shapes, format shapes, add text in shapes, and use drawing tools. | | | <ul style="list-style-type: none"> ➤ Computers , ➤ projector, ➤ text books, and data(image s, ➤ documents to give samples of data). ➤ ICT student book two |
| <p>Week 7 22-26/11</p> | | <p>Insert pictures and word Art objects</p> <ul style="list-style-type: none"> ▪ Insert a picture from the clipart gallery and from a file, insert a word Art objects <p>Equations and symbols</p> <ul style="list-style-type: none"> ▪ Insert symbols and special characters ▪ Write equations | | | <ul style="list-style-type: none"> ➤ Computers , ➤ projector, ➤ text books, and data(image s, ➤ documents to give samples of data). ➤ ICT student book two |

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| Week 8 29/11- 3/12 | Evaluation Key unit competency: Insert symbols, pictures , tables and objects into a document | |
| Week 9 6-10/12 | EXAMINATION PERIOD | |
| Week 11 20-24/12 | MARKING AND REPORT | |

Term 2

| DATES | UNIT TITLE | LESSON TITLE | Learning objectives + Key Unit competence | Teaching methods& techniques +Evaluation | Resources & References | OBSERVATIONS |
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| Week 1 10-14/01 | UNIT 4: SPREADSHEET BASICS | <ul style="list-style-type: none"> ▪ Definition and role of spreadsheet ▪ Create, save and open a workbook <p>Spreadsheet environment</p> <ul style="list-style-type: none"> ▪ Title bar, menus, tool bar, scroll bar, formula bar, status bar, cell, active cell, name box, column and row headings, | <ul style="list-style-type: none"> • Explain the role of a spread sheet. • Identify the basic features of a spreadsheet. • State how to manipulate cell contents. • Apply various methods to move, delete, and enter data from and into cells. • Manipulate a worksheet and interconnect different worksheets. • Use arithmetic operations to manipulate cell data. | <ul style="list-style-type: none"> • In groups, learners discuss and explore basic features of a spreadsheet environment. <p>Through teacher or electronic content guidelines:</p> <ul style="list-style-type: none"> • Learners write sample data in cells and apply indicated manipulation guided by the teacher or electronic content. • Learners to | <ul style="list-style-type: none"> ➢ Computers, ➢ projector, ➢ ICT student books, ➢ and interactive content. | |
| Week 2 17-21/01 | | <p>Cell, row and column basics</p> <ul style="list-style-type: none"> ▪ Definition, cell content, enter, select, copy and paste, cut and paste, cell data ▪ Change row height, column width, wrap text and merge cells ▪ Insert, delete, move, and hide rows and columns <p>Formatting a cell</p> <ul style="list-style-type: none"> ▪ Font ▪ Text alignment and orientation ▪ Cell borders and fill colors ▪ Formatting number and text | | | | |
| Week 3 24-28/01 | | <p>Worksheet basics</p> <ul style="list-style-type: none"> ▪ Insert, delete, rename, copy, move, group and ungroup worksheets | | | | |

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| | | <p>Mathematical operators</p> <ul style="list-style-type: none"> ▪ Addition, subtraction, multiplication, division and percentages ▪ Evaluation | | <p>link different worksheets by updating data through the grouping of worksheets</p> <ul style="list-style-type: none"> • Learners apply arithmetical operations on numerical data. | | |
| | <p>Key Unit Competency: Work with a spreadsheet and apply basic manipulation of cell content using arithmetical operations.</p> | | | | | |
| Week 4 31/01- 4/02 | UNIT 5: WORKSHEET DATA PRESANTATI ON | <p>Freeze panes</p> <ul style="list-style-type: none"> ▪ Freeze top row ▪ Freeze first column <p>Workbook view</p> <ul style="list-style-type: none"> ▪ Normal, page break preview, page layout, custom view, split the worksheet <p>Sort and filter</p> <ul style="list-style-type: none"> ▪ Custom sort, A to Z, Z to A, filter by color text, number, | <ul style="list-style-type: none"> ▪ Identify techniques to freeze columns and rows. ▪ Explain the difference between sorting and filtering. • Describe the impact | <ul style="list-style-type: none"> • Individually or in small groups the teacher helps learners to work on freezing columns or rows and sorting and filtering | <ul style="list-style-type: none"> ➢ Computers, ➢ projector, ➢ ICT student books. | |

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| | | <p>and custom filter</p> <ul style="list-style-type: none"> ▪ Evaluation | <p>that sorting can have on data.</p> | <p>data.</p> | | |
| <p>Key Unit Competency: Manage a window, sorting and filtering data in a spreadsheet</p> | | | | | | |
| Week 5 7-11/02 | UNIT 6: ArcGIS | <p>Creation of maps</p> <ul style="list-style-type: none"> ▪ Open a new open map and add data to the map <p>Display of layer (I)</p> <ul style="list-style-type: none"> ▪ Symbolize layer ▪ Add/remove labels of a layer ▪ Layer properties, source tab | <ul style="list-style-type: none"> • Know how to create maps in ArcGIS. • Know how to use navigation tools in ArcGIS • Add data to a map. • Work with data in a map. • Apply simple symbology techniques. • Use an attribute table. • Query a map using measure, go to XY, and hyperlink methods. | <ul style="list-style-type: none"> • Learners practically recall how to open an existing map, turn on and off layers, and order and rename layers. • Learners perform exercises on how to open a new empty map, add data and save a new map. | <ul style="list-style-type: none"> ➢ Computers, ➢ projector, ➢ ArcGIS ➢ deskt ➢ op, ➢ and ➢ ICT ➢ student ➢ book ➢ two. | |
| Week 6 14-18/02 | | <p>Attribute table</p> <ul style="list-style-type: none"> ▪ Open an attribute table, sort descending/ascending, and freeze and unfreeze a column | | | | |
| Week 7 | | Query methods(II) | | | | |

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| 21-25/02 | | <ul style="list-style-type: none">▪ Measure, go to xy, identify, hyperlink, and select features▪ Spatial thinking techniques▪ Evaluation | | <ul style="list-style-type: none">• The teacher encourages learners to explore and change symbols by right or left clicking on the symbol.• Learners explore the presentation of labels of a layer.• Learners open and arrange attribute tables.• The teachers help learners to use a query using methods such as measure, go to XY, identify, hyperlink | | |
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| | | | | and select features. | | |
| Key Unit Competency: Fill a new empty map with data, use simple symbols, label features and attributes table, and navigate a map. | | | | | | |
| Week 8 28/02- 4/03 | UNIT 7: COMPLEX FORMULAE AND FUNCTIONS | <p>Predefined operator and symbols in excel formulas</p> <ul style="list-style-type: none"> Complex formula <p>Cell references</p> <ul style="list-style-type: none"> Relative, absolute, and mixed references | <ul style="list-style-type: none"> Identify the order of operations to evaluate a formula involving more than one operator. Identify the importance of referencing a cell. Explain the roles of formula and predefined functions. | <ul style="list-style-type: none"> The teacher helps learners work with spreadsheets. Using sample data provided by the teacher, learners use complex formulas, cell referencing and functions to manipulate the content of cells. | <ul style="list-style-type: none"> ➤ Computers, ➤ projector, ➤ excel applications. | |
| Week9 7-11/03 | | <p>Cell reference of another worksheet</p> <ul style="list-style-type: none"> Copy paste option and sheet reference <p>Functions</p> <ul style="list-style-type: none"> Definition of functions Evaluation | | | <ul style="list-style-type: none"> ➤ And ICT student book two | |

Key Unit Competency: Work with spreadsheets to apply complex formula and functions recognizing the order of operations. Apply conditional formatting to the content of a worksheet. Use absolute and relative referencing.

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| Week 10 14-18/03 | | REVISION |
| Week 11 21-25/03 | | EXAMINATION PERIOD |
| Week 12 | | MARKING AND REPORT |

Term 3

| DATE S | UNIT TITLE | LESSON TITLE | Learning objectives + Key Unit competence | Teaching methods& techniques +Evaluation procedures | Resources & References | OBSERVATION S |
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| WEEK 1 18- 22/04 | UNIT 7: COMPLEX FORMULAE AND FUNCTIONS | Mathematical: SUM, AVG, ODD, INT, ROUND, EXP, SQRT, POWER, MOD, MAX, MIN, and PRODUCT | <ul style="list-style-type: none"> Use formula involving more than one operator to manipulate the content of cells. | <ul style="list-style-type: none"> Learners highlight specific content in a sheet based on a condition specified by the teacher. | | |
| Week 2 25- 29/04 | | Logical: AND, NOT, OR, and IF Text: COUNTA, COUNTBLAN | <ul style="list-style-type: none"> Apply cell referencing in | | | |

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| | | K, UPPER, LOWER, and REPLACE and SEARCH | <ul style="list-style-type: none"> formulas. Use functions to manipulate data in worksheets. | | |
| Week 3 2- 6/05 | | Conditional formatting <ul style="list-style-type: none"> Highlight cell rules (greater than, equal to, less than, etc), top bottom rules, data bars, color scales, and icon sets Evaluation | | | |
| Week 4 9- 13/05 | UNIT 8: NETWORK COMPONENTS AND SOCIAL MEDIA APPLICATIONS. | <ul style="list-style-type: none"> Devices that can be connected to a network(desktop, laptop, printers, scanners, PDAs), and smartphones Connect different devices to the computer network Network resources | <ul style="list-style-type: none"> Identify devices that can be connected to the network. Identify network resources. Identify different network mediums. Identify the network | <ul style="list-style-type: none"> In groups, discuss computer network devices, mediums and peripherals. The teacher helps learners describe different components of a computer network, | <ul style="list-style-type: none"> ➤ Computers, ➤ servers, ➤ routers, ➤ switches, ➤ transmission cables, ➤ projector, ➤ and ICT student book two. |
| Week 5 16- | | <ul style="list-style-type: none"> Network medium: cables (coaxial cable, fiber | | | |

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| 20/05 | | <p>optic cable, twisted pair cable), and radio wave (Bluetooth, infrared and Wi-Fi)</p> <ul style="list-style-type: none"> ▪ Computer network devices (switch, hub, access point, router and multifunction device ▪ Network peripherals (scanner and printer) | <p>device and the peripherals.</p> <ul style="list-style-type: none"> • Know how to use social media appropriately . • Connect devices to the network. • Explain computer network resources. • Differentiate between computer network mediums. | <p>resources and devices.</p> <ul style="list-style-type: none"> • The teacher helps students to identify and value the best practice of different types of social media. • In small groups, the teacher helps learners to communicate using predefined social media. | | |
| Week 6 23-27/05 | | <p>Social media</p> <ul style="list-style-type: none"> ▪ Value of social media, social media best practice, example of social media(Facebook, twitter, google +, linkedIn, YouTube, skype, blogging, etc) ▪ Evaluation | <ul style="list-style-type: none"> • Differentiate computer network devices. • Share on the computer network different network peripherals. • | | | |

Key Unit Competency: Identify computer network devices, medium and peripherals. Connect different computer devices to the network. Use social media to exchange information on social life.

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| Week 7 30/05 -3/06 | UNIT 9: GAME PROGRAMMING | <p>Game concepts</p> <ul style="list-style-type: none"> ▪ Game name ▪ List of sprite (name, costumes, sound, movements) | <ul style="list-style-type: none"> • Identify different classes needed to make a good game. • Apply detailed classes to develop a game. • Include rules in the game. • Interact with the basic classes to produce a game such as game name, sprites, sprite interaction, backgrounds, and | <ul style="list-style-type: none"> • Individual work on producing a game. • The learner can imagine/observe an animated game and produce it. • Group discussion on how to associate commands and produce a good game. • Practice how to include rules in the game using scratch commands such as touching colour, broadcast, when I receive, go | <ul style="list-style-type: none"> ➤ Scratch editor, ➤ internet connection, ➤ digital material, ➤ projector, ➤ ICT student book two, ➤ And computer | ➤ |
| Week 8 6- 10/05 | | <ul style="list-style-type: none"> ▪ How sprite interact in this game ▪ Provide the list of background ▪ The score counter rule and level advancement rule | | | | |
| Week 9 13- 17/06 | | <p>Correct detailed data in the table</p> <ul style="list-style-type: none"> ▪ Provide in a well-drawn table(draft) each item that will guide the game designer in order to | | | | |

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| | | limit any kind of mistake or jumping of steps | scores and levels. | to, change by, show, etc. | | |
| Week 10 20-24/06 | | Commands to set game rules <ul style="list-style-type: none"> ▪ Switch to costume, forever, if, touching color, broadcast, when I receive, ▪ Go to, change by, show, repeat, hide, wait, stop all, point in direction | <ul style="list-style-type: none"> • To detail each class by providing an information table to for clarity and greater understanding. | | | |
| Week 11 27/06-1/07 | | <ul style="list-style-type: none"> ▪ Round pick random, if on, edge bounce, turn, if else, etc. ▪ Evaluation | <ul style="list-style-type: none"> • Create scripts based on the sprite interaction rules. | | | |
| Key Unit Competency: To be able to design a game, collect data in a table and add game rules. | | | | | | |
| Week 12 4-8/07 | | EXAMINATION PERIOD | | | | |
| Week 13 11-15/07 | | MARKING AND REPORT | | | | |

