

SECOND TERM LESSON PLAN

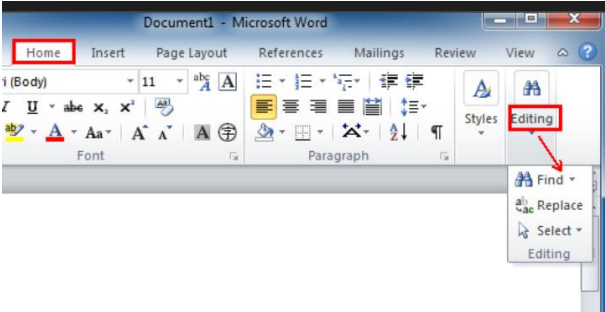
COMPUTING – B7

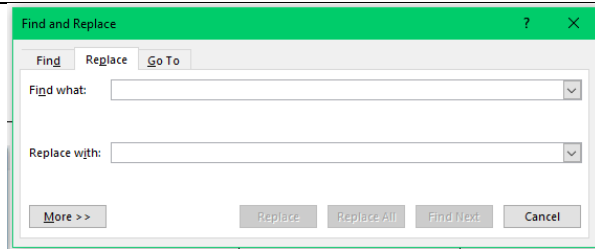
WEEK I

Strand : Productivity Software		Week Ending: 13 th MAY, 2022	
Sub Strand : Introduction to Word Processing		Duration :50mins	
Content Standard : B7.2.1.1 Demonstrate how to use Microsoft Word		Class : B7	
Indicators : B7.2.1.1.2. Demonstrate how to insert, select, delete and move text		Day :	
Core competences : DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.			
Activities For Learning & Assessment	Equipment/Resources	Learners Resource Page Ref.	Progression
<p>Starter (5 mins)</p> <p>Recap with learners to review their understanding in the previous lesson.</p> <p>Introduce the lesson by sharing the performance indicators.</p> <p>Main (35 mins)</p> <p>Brainstorm learners to come out with the meaning of editing. <i>Editing is the process of correcting mistake changes to the content of a document.</i></p> <p>Show projected examples of MS-Word interface with the aid of a computer, projector or pictures.</p>	Set of computer, Video /pictures	Computing Curriculum Pg. 8-9	Learning how to use insert text, move text, delete text, undo, redo and use the spelling & grammar check

<p>Guide learners to discuss the ways of editing a document. Example: inserting text, moving text, deleting text, undo, redo and spelling & grammar check. Demonstrate to learners, how to insert, move and delete text in a word document. Example: to insert text</p> <ol style="list-style-type: none"> 1. Move the insertion point to where you want to insert the text. 2. Click to place the insertion point 3. Start typing the text <p>Learners practice how to use the undo, redo and spelling & grammar check tools for editing.</p> <p>Have learners to explore more tools for editing in MS Word.</p> <p>Explore the use of the overtype or insert option by right-clicking the status bar.</p> <p>Reflection (10 mins) We have learnt how to use spelling and grammar check as well as setting language preferences.</p> <p>Engage learners in a think-pair-share activity to practice how to spell and grammar check text in a passage.</p>			
Homework/Project Work/Community Engagement Suggestions			
<ul style="list-style-type: none"> • What is editing? • State three ways of editing a word document. • Describe how to insert a text in a word document. 			
Cross-Curriculum Links/Cross-Cutting Issues			
None			
Potential Misconceptions/Student Learning Difficulties			
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory.			

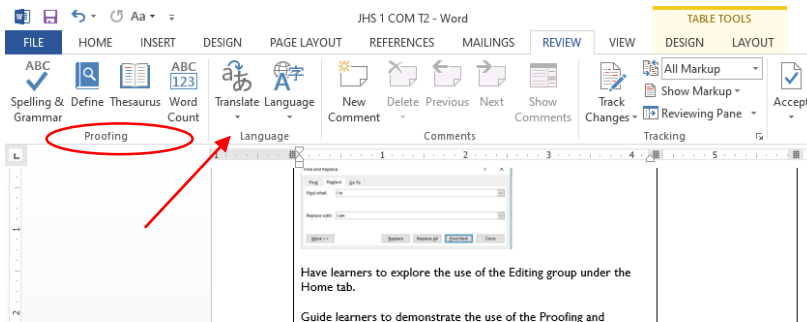
Strand : Productivity Software	Week Ending: 13 th MAY, 2022
Sub Strand: Introduction to Word Processing	Duration : 50mins
Content Standard: B7.2.1.1 Demonstrate how to use Microsoft Word	Class : B7
Indicators: B7.2.1.1.3-4. Demonstrate how to find and replace content and undo edited changes and demonstrate how to spell check, carry out content translation, language setting	Day :
Core competences: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.	

Activities For Learning & Assessment	Equipment/Resources	Learners Resource Page Ref.	Progression
<p>Starter (5 mins)</p> <p>Recap with learners to review their understanding in the previous lesson.</p> <p>Introduce the lesson by sharing the performance indicators.</p> <p>Main (35 mins)</p> <p>Guide learners to make use of the Find and Replace tool in MS-Word under the Home tab.</p> 	Set of computer, Video /pictures	Computing Curriculum Pg. 8-9	Learning how to use Find and Replace tool in MS-Word, Proofing and Language group, Spelling & Grammar, Thesaurus



Have learners to explore the use of the Editing group under the Home tab.

Guide learners to demonstrate the use of the Proofing and Language group under the Review tab.



Show how to use the Language, Spelling & Grammar, Thesaurus and other tools in MS-Word under the Home tab.

Reflection (10 mins)

We have learnt how to use replace tool in MS-Word, Proofing and Language group, Spelling & Grammar, Thesaurus.

Engage learners in a think-pair-share activity to practice how to use replace tool in MS-Word and spell and grammar check text in a passage.

Homework/Project Work/Community Engagement Suggestions

- | |
|---|
| <ul style="list-style-type: none">• What is editing?• State three ways of editing a word document.• Describe how to insert a text in a word document. |
|---|

Cross-Curriculum Links/Cross-Cutting Issues
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None

Potential Misconceptions/Student Learning Difficulties

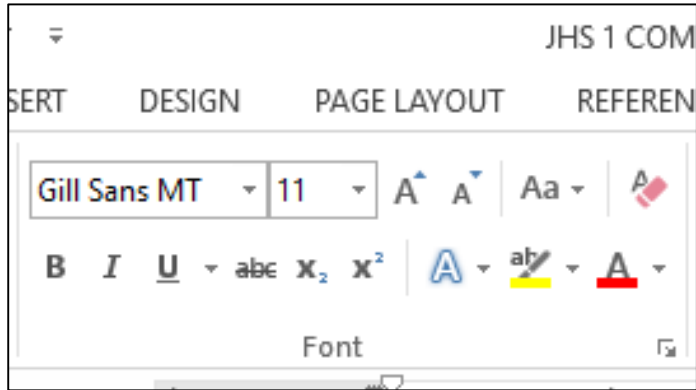
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory.
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WEEKLY LESSON NOTES – B7

WEEK 2

Strand : Productivity Software		Week Ending: 20 th MAY, 2022	
Sub Strand: Introduction to Word Processing		Duration :50mins	
Content Standard: B7.2.1.1 Demonstrate how to use Microsoft Word		Class : B7	
Indicators: B7.2.1.1.5 Demonstrate how to use text-decoration, change text case, text size and color		Day :	
Core competences: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.			
Activities For Learning & Assessment		Resources	Learners Resource Page Ref.
<p>Starter (5 mins)</p> <p>Recap with learners to review their understanding in the previous lesson.</p> <p>Introduce the lesson by sharing the performance indicators.</p> <p>Main (35 mins)</p> <p>Guide learners to explore the use of the Font group under the Home tab.</p> <p>Quiz learners to mention some of the tools under the Font group.</p> <p>Example: Font style and Font size Bold, Italics and Underline Strikethrough Superscript and Subscript</p>		Set of computer, Video /pictures	Computing Curriculum Pg. 8-9
			Learning how to use text-decoration, change text case, text size and color in MS Word

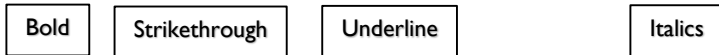
Increase and decrease font size



Engage learners to demonstrate the use Bold, Italic, Underline Strikethrough, Superscript and Subscript in MS-Word.

Example:

The **boy** is ~~going~~ to school with his *friends*.



4x4x4x4=4⁴ → Superscript

Two molecules of oxygen = O₂ → Subscript

Demonstrate the use of sentence case, font size, color and font decoration features in MS-Word

Example:

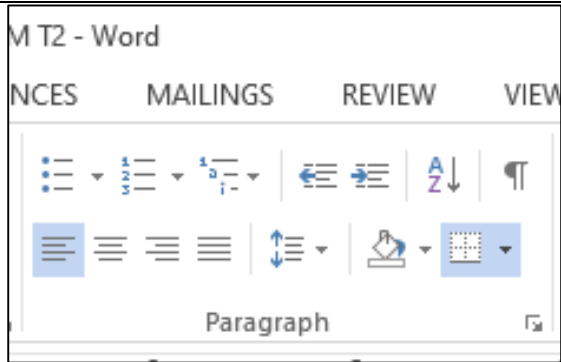
Chantal is an **intelligent** student.

Changing the font style of a Text

1. Highlight the text you want to change its font type.

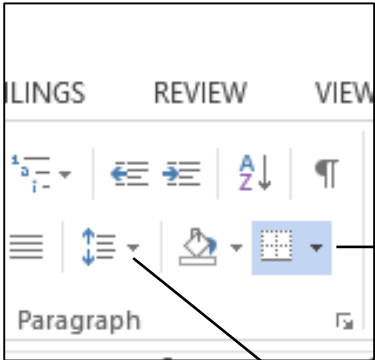
<p>2. Click the font type list arrow and 3. Select the font style of your choice from the list.</p> <p>Project examples of MS-Word interface to learners with the aid of a projector or pictures.</p> <p>Reflection (10 mins) We have learnt how to use replace tool in MS-Word, Proofing and Language group, Spelling & Grammar, Thesaurus.</p> <p>Engage learners in a think-pair-share activity to practice how to use replace tool in MS-Word and spell and grammar check text in a passage.</p>			
<p>Homework/Project Work/Community Engagement Suggestions</p>			
<p>1. Identify any five Editing tools you know. 2. State the use of the following</p> <ol style="list-style-type: none"> a. text-decoration, b. change text case, c. text size d. text color 			
<p>Cross-Curriculum Links/Cross-Cutting Issues</p>			
<p>None</p>			
<p>Potential Misconceptions/Student Learning Difficulties</p>			
<p>The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory.</p>			

Strand : Productivity Software		Week Ending: 20 th MAY, 2022	
Sub Strand: Introduction to Word Processing		Duration : 50mins	
Content Standard: B7.2.1.1 Demonstrate how to use Microsoft Word		Class : B7	
Indicators: B7.2.1.1.6 Demonstrate how to align text, indent paragraphs, bullet, line space and shade		Day :	
Core competences: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.			
Activities For Learning & Assessment	Resources	Learners Resource Page Ref.	Progression
<p>Starter (5 mins)</p> <p>Recap with learners to review their understanding in the previous lesson.</p> <p>Introduce the lesson by sharing the performance indicators.</p> <p>Main (35 mins)</p> <p>Guide learners to explore the use of the Paragraph group, using the align left, center, align right and justified in MS-Word under the Home tab.</p>	Set of computer, Video /pictures	Computing Curriculum Pg. 8-9	Learning how to how to align text, indent paragraphs, bullet, line space and shade in MS



Guide learners to explore the use of Bullets, Decrease and Increase Indentation under the Home tab.

Guide learners to identify the use of the Border Button and set line spacing using the dialog Box Launcher button under the Home tab.



Border button

Line and Spacing

Reflection (10 mins)

We have learnt how to use replace tool in MS-Word, Proofing and Language group, Spelling & Grammar, Thesaurus.

Engage learners in a think-pair-share activity to practice how to use replace tool in MS-Word and spell and grammar check text in a passage.			
Homework/Project Work/Community Engagement Suggestions			
<ol style="list-style-type: none"> 1. Identify any three Editing tools you know. 2. State the use of the following <ol style="list-style-type: none"> a. align text b. indent c. paragraphs, d. bullet, e. line space and shade 			
Cross-Curriculum Links/Cross-Cutting Issues			
None			
Potential Misconceptions/Student Learning Difficulties			
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory.			

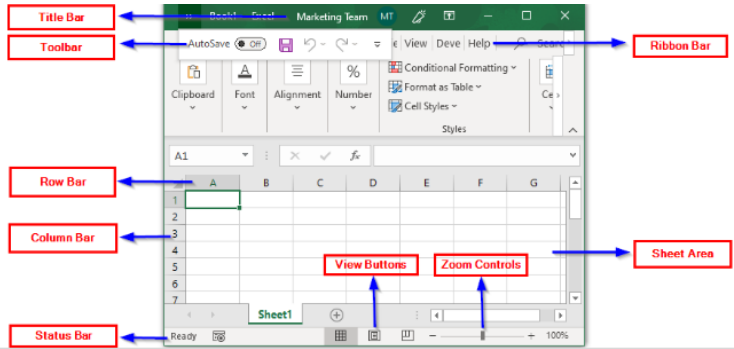
WEEKLY LESSON NOTES – B7

WEEK 3

Strand : Productivity Software		Week Ending: 27 th MAY, 2022	
Sub Strand: Introduction to Electronic Spreadsheet		Duration :	
Content Standard: B7.2.3.1. Demonstrate how to use the Spreadsheet (Editing Worksheets)		Class : B7	
Indicators: B7.2.3.1.1. Explain the importance of electronic spreadsheet		Day :	
Core competences: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.			
Activities For Learning & Assessment			
Resources		Learners Resource Page Ref.	Progression
<p>Starter (5 mins) Using questions and answers, revise with learners to find what they already know about electronic spreadsheet</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins) Brainstorm learners to discuss the meaning of electronic spreadsheet. <i>A spreadsheet is a grid or table made from column and rows that is primarily used to work with numbers and text.</i></p> <p>Guide learners to launch the MS-Excel</p> <ul style="list-style-type: none"> • Click on the start button to open the start menu. • Scroll down to locate the Microsoft Office folder • Click on the folder to open the drop down menu. • Click on Microsoft Office Excel. 		<p>Computer with Microsoft Excel, mouse or touchscreen input device, projector</p> <p>Computing Curriculum Pg. 9-10</p>	<p>Learning the importance of electronic spreadsheet</p>

<p>Discuss the benefits of using electronic spreadsheet software.</p> <p>Example:</p> <ul style="list-style-type: none"> • It helps to maintain values • It helps us to represent values graphically by creating charts based on worksheet figures. • It is also used to create data summaries and short-lists using PivotTables or AutoFilters. <p>Brainstorm learners to elicit response on some common electronic spreadsheet software packages. Example: MS Excel, Lotus 1-2-3, LibreOffice Calc, Google Sheets etc.)</p> <p>Reflection (10 mins) We have learnt the importance of electronic spreadsheet.</p> <p>Engage learners in a think-pair-share activity to come up with other importance of electronic spreadsheet.</p>			
<p>Homework/Project Work/Community Engagement Suggestions</p>			
<ul style="list-style-type: none"> • Have learners do further reading on the importance of electronic spreadsheet. • Learners to differentiate between electronic spreadsheet and manual spreadsheet. 			
<p>Cross-Curriculum Links/Cross-Cutting Issues</p>			
<p>None</p>			
<p>Potential Misconceptions/Student Learning Difficulties</p>			
<p>The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory</p>			

Strand : Productivity Software	Week Ending: 27 th MAY, 2022
Sub Strand: Introduction to Electronic Spreadsheet	Duration :
Content Standard: B7.2.3.1. Demonstrate how to use the Spreadsheet (Editing Worksheets)	Class : B7
Indicators: B7.2.3.1.2. Explore features of MS-Excel interface	Day :
Core competences: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.	

Activities For Learning & Assessment	Resources	Learners Resource Page Ref.	Progression
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Revise with learners on how to launch the Microsoft Office Excel.</p> <p>Show projected examples of MS-Excel interface with the aid of a projector or pictures.</p> 	<p>Computer with Microsoft Excel, mouse or touchscreen input device, projector</p>	<p>Computing Curriculum Pg. 9-10</p>	<p>Learning how to insert, select, delete and move data using a sample data set</p>

<p>Guide learners to explore features of MS-Excel interface. Example: title bar, menu bar, standard and formatting toolbars, worksheet, workbook, column, row, range, AutoSum, etc.</p> <p>Learners to explore and demonstrate the functions of the features identified above.</p> <p>Explore operations of inserting, selecting, deleting and moving data.</p> <p>Learners explore techniques of inserting, selecting, deleting and moving data in groups.</p> <p>Demonstrate how to insert, select, delete and move data using a sample data set.</p> <p>Learners practice how to insert, select, delete and move data using a sample data set.</p> <p>Reflection (10 mins) We have learnt how to select and move data.</p> <p>Engage learners in a think-pair-share activity on how to use other techniques for moving text.</p>			
<p>Homework/Project Work/Community Engagement Suggestions</p>			
<ul style="list-style-type: none"> • Do further reading on how to set the cell data type (General, Number, Currency, etc.) • Identify any six (6) features of Microsoft Excel. • State the function of the AutoSum in Excel 			
<p>Cross-Curriculum Links/Cross-Cutting Issues</p>			
<p>None</p>			
<p>Potential Misconceptions/Student Learning Difficulties</p>			
<p>The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory</p>			

WEEKLY LESSON NOTES – B7

WEEK 4

Strand : Productivity Software	Week Ending : 3 RD JUNE, 2022		
Sub Strand : Introduction to Electronic Spreadsheet	Duration :		
Content Standard : B7.2.3.1. Demonstrate how to use the Spreadsheet (Editing Worksheets)	Class : B7		
Indicators : B7.2.3.1.3. Demonstrate how to set the cell datatype	Day :		
Core competences : DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.			
Activities For Learning & Assessment	Resources	Learners Resource Page Ref.	Progression
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Guide learners to discuss the types of data in spreadsheet. Example: Value - +23341123456 Labels/Text – January, July, 24.04', #3, 7th, etc. Formula – A7 + B7, =C4 * C5, etc. Function - =SUM(A5:G5), AVERAGE(B4:B5)</p> <p>Revise with learners on how to enter data in spreadsheet. Example:</p>	Computer with Microsoft Excel, mouse or touchscreen input device, projector	Computing Curriculum Pg. 9-10	Learning how to set and modify the cell type of values and text.

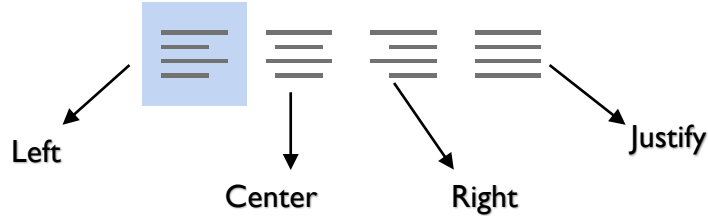
<ul style="list-style-type: none"> • Click the cell where you want type information. • Type the data. • The data can either typed in the active cell or in the formula bar. • Click on the Enter key. <p>Let learners investigate data entry techniques, how to set and modify the cell type of values and text. Example:</p> <ul style="list-style-type: none"> • AutoFill – enter the first value in a recognized series and use the fill handle to extend the series. • AutoComplete – type the first few letters in a cell, and if a similar value exist in the same column, Excel suggests the existing value. • Fill series – enter the first two values in a series and use the fill handle to extend the series. <p>Guide learners to enter values, text, dates and time in worksheet cells and change the formats for presentation. E.g. General, Number, Currency, Accounting, Dates, Time, etc.</p> <p>Reflection (10 mins) We have learnt how to select and move data.</p> <p>Engage learners in a think-pair-share activity on how to use other techniques for moving text.</p>			
Homework/Project Work/Community Engagement Suggestions			
<ul style="list-style-type: none"> • State the four types of data we enter into spreadsheet. 			
Cross-Curriculum Links/Cross-Cutting Issues			
None			
Potential Misconceptions/Student Learning Difficulties			
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Strand : Productivity Software		Week Ending: 3 RD JUNE, 2022	
Sub Strand: Introduction to Electronic Spreadsheet		Duration :	
Content Standard: B7.2.3.1. Demonstrate how to use the Spreadsheet (Editing Worksheets)		Class : B7	
Indicators: B7.2.3.1.4. Demonstrate how to use Align Text, Merge & Wrap, Borders and Shades		Day :	
Core competences: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.			
Activities For Learning & Assessment	Resources	Learners Resource Page Ref.	Progression
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Have learners demonstrate how to apply the AutoSum feature. <i>Excel can make somewhat of an intelligent decision on its own and determine which cells of a row or column should be "summed" . This is called the AutoSum feature.</i></p> <p>To quickly add the contents of a column or row, follow the steps shown below:</p> <ol style="list-style-type: none"> 1.Select the cell either to the right or below the cells that are to be total ed. 2.Double Click on the AutoSum tool (which is located on the standard tool bar). <p>Guide learners to demonstrate how to change text alignment (Horizontal & Vertical), merge cells and wrap text.</p>	<p>Computer with Microsoft Excel, mouse or touchscreen input device, projector</p>	<p>Computing Curriculum Pg. 13-14</p>	<p>Learning how to change text alignment, merge cells and wrap text</p>

ALIGNING CELL DATA

Unless you specify otherwise, Excel left justifies text and right justifies numbers. That is, text fills cell space from left to right while numbers are filled from right to left so that they align properly.

To change the cell alignment for a single cell or a group of selected cells, click one of the following tools.



How to merge cells

A single cell is created by combining two or more selected cells. The cell reference for a merged cell is the upper left cell in the original selected range. If there is a data in other cells, the data is deleted.

- Copy the data you want into the upper left most cell within the range
- Select the cells in arrow or column and center the cell contents, click merge and center on the formatting toolbar.

Have learners investigate how to access border & shade features and format the appearance of a worksheet as group work.

Reflection (10 mins)

We have learnt how to change text alignment, merge cells and wrap text.

Engage learners in a think-pair-share activity on how to use other techniques for moving text.

Homework/Project Work/Community Engagement Suggestions

Describe briefly to merge cells in a spreadsheet.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

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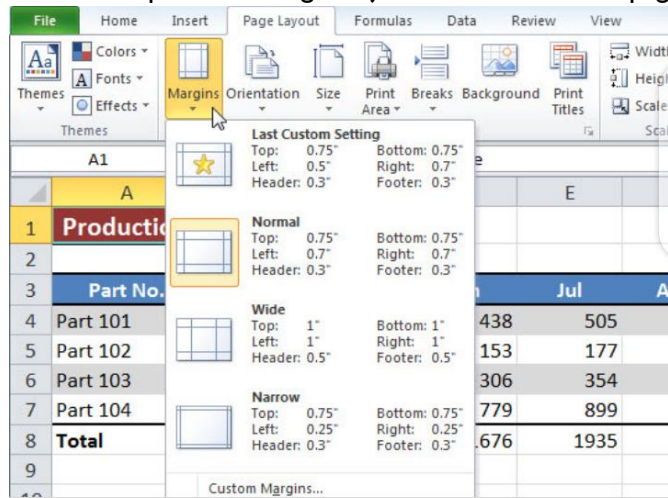
WEEKLY LESSON NOTES – B7

WEEK 5

Strand : Productivity Software		Week Ending : 10 TH JUNE, 2022	
Sub Strand : Introduction to Electronic Spreadsheet		Duration :	
Content Standard : B7.2.3.2. Demonstrate how to format a worksheet		Class : B7	
Indicators : B7.2.3.2.1 Demonstrate how to adjust margins and set page orientation		Day :	
Core competences : DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.			
Reference : Computing Curriculum P.g. 16			
Activities For Learning & Assessment			
		Resources	Learners Resource Page Ref.
		Progression	
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Guide learners to demonstrate how to adjust margins and set page orientation for printing.</p> <p><u>Adjusting Margins</u></p> <ul style="list-style-type: none"> • On the page layout tab, click margins, and then select custom margins. • Use the arrows to increase or decrease the margin size in the appropriate box. When you are done, click Ok. <p><u>Page Setup</u></p>		<p>Computer with Microsoft Excel, mouse or touchscreen input device, projector</p>	<p>Computing Curriculum Pg. 9-10</p>
			<p>Learning how to adjust margins and set page orientation for printing</p>

- Press CTRL and then click each worksheet tab in the workbook that you want to affect
- On the file menu, click page setup. Click the dialog box launcher in the page setup group in the page layout tab.
- Make the changes that you want in the page setup dialog box, and then click Ok.

Demonstrate how to perform margin adjustment on different page sizes.



Guide learners to explore the display of worksheets in different views as listed on the View tab.

Reflection (10 mins)

We have learnt how to adjust margins and set page orientation for printing.

Engage learners in a think-pair-share activity on how to use other techniques for moving text.

Homework/Project Work/Community Engagement Suggestions

- Describe how to adjust margins for printing in Excel
- List four tools on the Page Layout tab and give one function of each.

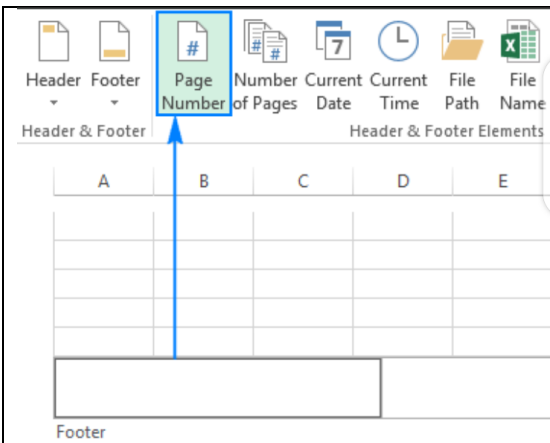
Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

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Strand : Productivity Software		Week Ending: 10 th JUNE, 2022	
Sub Strand: Introduction to Electronic Spreadsheet		Duration :	
Content Standard: B7.2.3.2. Demonstrate how to format a worksheet		Class : B7	
Indicators: B7.2.3.2.2. Demonstrate how to set up a header and a footer.		Day :	
Core competences: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.			
Reference: Computing Curriculum P.g. 16			
Activities For Learning & Assessment		Resources	Learners Resource Page Ref.
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Guide learners to demonstrate to learners how to set up header and footer elements.</p> <ul style="list-style-type: none"> • <i>On the inert tab, in the text group, click Header & Footer.</i> • <i>To add or edit a header or footer text box at the top or the bottom of the worksheet page (under header, or above footer)</i> • <i>Type the new header or footer text.</i> <p>Engage learners to explore the use of page numbers, current date, time and file name in setting up headers and footers.</p>		Computer with Microsoft Excel, mouse or touchscreen input device, projector	Computing Curriculum Pg. 13-14
			Learning how to set up header and footer elements



Reflection (10 mins)

We have learnt how to set up headers and footer elements.

Engage learners in a think-pair-share activity on how to use other techniques for moving text.

Homework/Project Work/Community Engagement Suggestions

Describe briefly how to set up header and footer elements in Excel.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

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WEEKLY LESSON NOTES – B7

WEEK 6

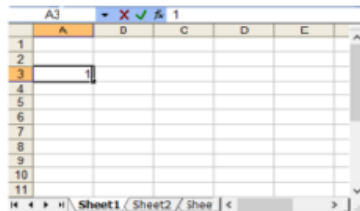
Strand : Productivity Software		Week Ending : 17 TH JUNE, 2022	
Sub Strand : Introduction to Electronic Spreadsheet		Duration :	
Content Standard : B7.2.3.2. Demonstrate how to format a worksheet		Class : B7	
Indicators : B7.2.3.2.3. Demonstrate the use of the Autofill function in MS-Excel worksheet		Day :	
Core competences : DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.			
Reference : Computing Curriculum P.g. 16			
Activities For Learning & Assessment	Resources	Learners Resource Page Ref.	Progression
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Demonstrate the use of the Autofill function. e.g. to generate the days of the week, months of the year, set of numbers (e.g. counting numbers, odd numbers, multiplication tables etc.).</p> <p>To do this:</p> <p>I. Select the first cell in the range that you want to fill (e.g. A3).</p>	Computer with Microsoft Excel, mouse or touchscreen input device, projector	Computing Curriculum Pg. 9-10	Learning how to use the Autofill function to generate the days of the week, months of the year, set of numbers

2. Type the starting value for the series (e.g. 1 in A3).

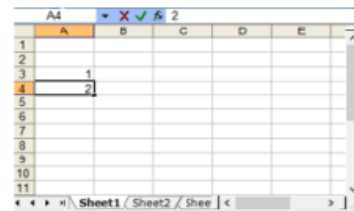
3. Type a value in the next cell to establish a pattern (e.g. 2 in A4). [Tip: For example, if you want the series 1, 2, 3, 4, 5..., type 1 and 2 in the first two cells. If you want the series 2, 4, 6, 8..., type 2 and 4.]

4. Select the cells that contain the values (e.g. A3 and A4)

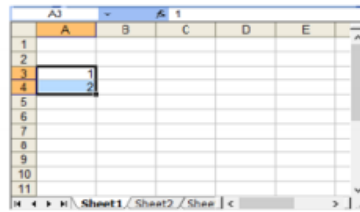
5. Drag the fill handle  across the range that you want to fill (e.g. A3:A10)



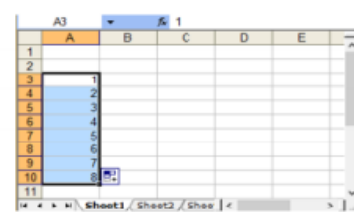
Step 1 & 2



Step 3



Step 4



Step 5

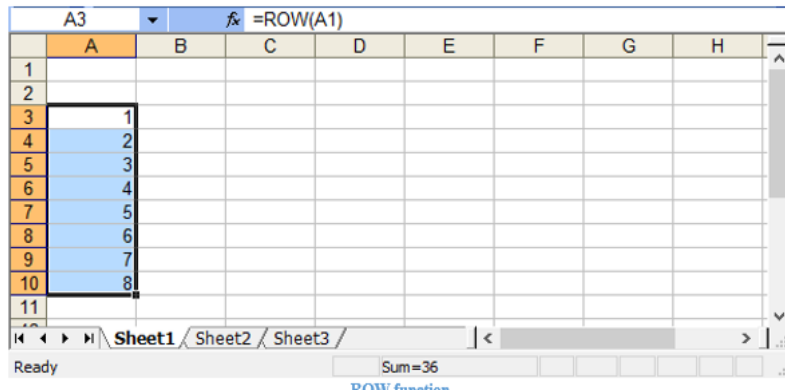
Again guide learners to use function to number rows or columns

1. Select the first cell in the range that you want to fill. (e.g. A3)

2. Type the ROW function (e.g. = ROW(A1)). [The ROW function returns the number of the row that you reference. For example, = ROW(A1) returns the number 1.]

3. Select the cells that contain the function (e.g. A3).

4. Drag the fill handle  across the range that you want to fill. (e.g. A3:A10)



Reflection (10 mins)

We have learnt how to use Autofill function to generate the days of the week, months of the year, set of numbers.

Engage learners in a think-pair-share activity on how to use other techniques for moving text.

Homework/Project Work/Community Engagement Suggestions

- Describe how to use Autofill function to generate the days of the week, months of the year, set of numbers.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory

Strand : Productivity Software	Week Ending: 17 th JUNE, 2022
Sub Strand: Introduction to Electronic Spreadsheet	Duration :
Content Standard: B7.2.3.2. Demonstrate how to format a worksheet	Class : B7
Indicators: B7.2.3.3.1. Demonstrate how to create formulas	Day :
Core competences: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.	
Reference: Computing Curriculum P.g. 16	

Activities For Learning & Assessment	Resources	Learners Resource Page Ref.	Progression																														
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Guide learners to identify and name cells in an Excel. A cell is named after its column letter and row number. Example: B4, C6, E8</p> <p>Guide learners to create simple formulas starting with the equal sign. Excel formulas makes use of the basic mathematical operations (+, -, * and /)</p> <table border="1" data-bbox="310 1230 1016 1404"> <tr> <td>A3</td> <td>▼</td> <td>X</td> <td>fx</td> <td></td> <td></td> </tr> <tr> <td></td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> </tr> <tr> <td>1</td> <td colspan="2">Name</td> <td>Class score</td> <td>Exams score</td> <td>Total</td> </tr> <tr> <td>2</td> <td colspan="2">Kojo Nkrumah</td> <td>25</td> <td>46</td> <td>71</td> </tr> <tr> <td>3</td> <td colspan="2">Ama Serwaa</td> <td>19</td> <td>45</td> <td></td> </tr> </table>	A3	▼	X	fx				A	B	C	D	E	1	Name		Class score	Exams score	Total	2	Kojo Nkrumah		25	46	71	3	Ama Serwaa		19	45		<p>Computer with Microsoft Excel, mouse or touchscreen input device, projector</p>	<p>Computing Curriculum Pg. 13-14</p>	<p>Learning how to create simple formulas in Excel</p>
A3	▼	X	fx																														
	A	B	C	D	E																												
1	Name		Class score	Exams score	Total																												
2	Kojo Nkrumah		25	46	71																												
3	Ama Serwaa		19	45																													

4	Efia Akoto	24	35	
5	Kofi Cash	15	34	

- Write formulas for cell E3, E4 and E5.

From the table the figure in cell E2 (71) is as a results of adding 25 and 46.

Therefore we are to use the operation sign (+).

Now determine the cell which contains the figures 25 and 46.

That is C2 (25) and D2 (46).

So we can conclude that

$$E2 = C2 + D2$$

$$E3 = C3 + D3$$

A3		▼ X fx			
	A	B	C	D	E
1	Items		Selling Price	Cost Price	Total
2	Milk		6	4	
3	Sugar		20	15	5
4	Milo		50	35	
5	Gari		35	20	15

- Write formulas for cell E2 and E4.

From the table the figure in cell E3 (5) is as a results of subtracting 15 from 20. Therefore we are to use the operation sign (-).

Now determine the cell which contains the figures 20 and 15.

That is C3 (20) and D3 (15).

So we can conclude that

So we can conclude that

$$E3 = C3 - D3$$

Reflection (10 mins)

We have learnt how to create simple formulas in Excel.

Engage learners in a think-pair-share activity on how to use other techniques for moving text.

Homework/Project Work/Community Engagement Suggestions

	A	B	C	D	E
1					
2		BOOKS	QUANTITY	PRICE (GH¢)	AMOUNT (GH¢)
3		GRADE 1 ICT	11	10	110
4		KINGLION JHS ICT	9	10	90
5		GRADE 1 RME	8	10	80
6		KINGLION SONGS BOOK	40	5	200
7		GRADE 1 MATHS	32	10	320
8			Sub Total		800
9			Discount		80
10			Total Amount		720

Write formulas for cell E3, E7, E8, E9, E10

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory

WEEKLY LESSON NOTES – B7

WEEK 7

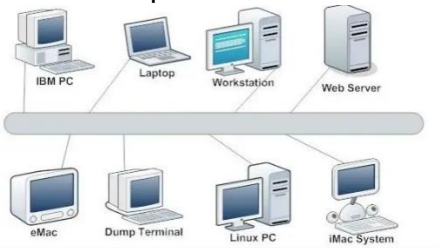
Date: 24 th JUNE, 2022	DAY:	Subject: Computing	
Duration:		Strand: Communication Networks	
Class: B7	Class Size:	Sub Strand: Computer Networks	
Content Standard: B7.3.1.1 Identify the concept of computer networking for global communications.	Indicator: B7.3.1.1.1 Draw diagrams to illustrate features of the network topologies (Bus, Star, Ring, Mesh)	Lesson: 1 of 2	
Performance Indicator: Learners can draw diagrams to illustrate features of the network topologies	Core Competencies: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.		
Reference: Computing Curriculum P.g. 16-18			
Activities For Learning & Assessment		Resources	Progression
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Display pictures or show a video of people communicating using phones, text messaging, video conferencing, etc. Help learners understand how they are all connected to each other.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Engage learners to explore key hardware for setting up network systems (such as server, client, hub, switch, cable etc.)</p>		<p>Pictures of network topologies, sketch diagram, projector</p>	<p>the various media through which people communicate.</p> <p>Identifying major components that help computers to communicate.</p> <p>Learning how to draw diagrams to illustrate features of the network topologies</p>



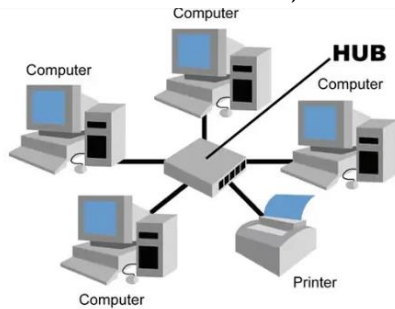
Network Diagram-Typical Simple Home Network

Show learners diagrams of various setups to explain network topologies.

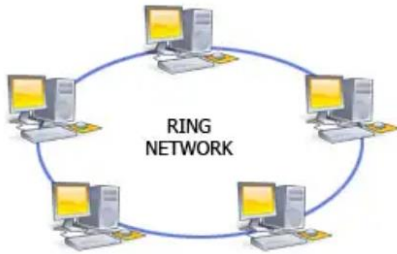
Bus – is a communication system that transfers data between components inside a computer or between computers.



Star – in a star network, each computer is connected by its own cable directly to the server.



Ring – in a ring network, all the computers are to one another in a circle.



Mesh – is a network setup where each computer and network device is interconnected with one another.



Let learners discuss the features of each network topology.

Have learners present in groups, diagrams of well-elaborated network topologies.
Allow learners to sketch the topologies to deepen their understanding.

Reflection (10 mins)

We have learnt how to draw diagrams to illustrate features of the network topologies.

Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework/Project Work/Community Engagement Suggestions

- Learners are to work in groups to design well-elaborated network topologies and present them in class
- Using play dough and sticks, form/design the types of network topologies.

Date: 24 th JUNE, 2022	DAY:	Subject: Computing
Duration:		Strand: Communication Networks
Class: B7	Class Size:	Sub Strand: Computer Networks
Content Standard: B7.3.1.1 Identify the concept of computer networking for global communications	Indicator: B7.3.1.1.2 Describe types of networks.	Lesson: 2 of 2
Performance Indicator: Learners can describe the types of networks.	Core Competencies: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.	
Reference: Computing Curriculum P.g. 16-18		
Activities For Learning & Assessment	Resources	Progression
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Brainstorm learners for the meaning of Network. <i>A network is the collection of two or more computers and hardware components that are linked together such as that they can communicate using wire or wireless technology.</i></p> <p>Have learners discuss the two forms of network.</p> <ul style="list-style-type: none"> • Wired network is a network that uses network cables or wires to connect the computers in the network. It is called Cable Network. • Wireless Network – this doesn't not use wires or cables to connect computers in a network. It uses wireless technologies such as GPRS, EDGE, WIFI, WiMax, HSPA, infrared and Bluetooth. 	<p>Pictures of network topologies, sketch diagram, projector</p>	<p>Describing the types of networks</p>

Guide learners to explain the various types of networks available. (e.g. PAN, LAN, MAN, WAN, WLAN, INTERNET, etc.)

- *The International Network (Internet) : Internet is a global network connecting millions of computers that communicate using wire or wireless technology.*
- *Local Area Network (LAN): Is a network of computers that are geographical close together (in a single building) such as school building, computer laboratory, office building, etc.*
- *Wide Area Network (WAN): Is a combination of two or more Local Area Networks (LANs). The computers are farther apart and are connected by telephone lines or radio waves.*
- *Personal Area Network (PAN) is the network around a person for his/her personal use. PAN involves the use of USB cables, Bluetooth or Infrared in connecting the computers for communication.*
- *Home Area Network (HAN) is the network of digital devices in a user's home. Devices may include computer, printer, mobile devices, game consoles, remote control, etc.*
- *Campus Area Network (CAN) is a network within a limited geographical area such as university campus, company, government agency, etc.*
- *Metropolitan Area Network (MAN) is a network that spans a city or a metropolitan area.*
- *Intranet is a restricted private network within an organization that is only used by authorized users.*
- *Extranet is a private network of an organization or company or bank that can be accessed by customers. It uses Internet technology to securely share part of a business's information or operations with suppliers, vendors, partners, customers or other businesses.*

Reflection (10 mins)

We have learnt the types of networks.

Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework/Project Work/Community Engagement Suggestions

- | |
|---|
| <ul style="list-style-type: none">• What is Network?• Differentiate between wired and wireless network.• Explain the following terms
PAN, WLAN, WAN, LAN. |
|---|

Cross-Curriculum Links/Cross-Cutting Issues
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None

Potential Misconceptions/Student Learning Difficulties

The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory

WEEKLY LESSON NOTES – B7

WEEK 8

Date: 1 ST JULY, 2022	DAY:	Subject: Computing	
Duration:		Strand: Communication Networks	
Class: B7	Class Size:	Sub Strand: Computer Networks	
Content Standard: B7.3.1.1 Identify the concept of computer networking for global communications.	Indicator: B7.3.1.1.3 Discuss the entrepreneurial opportunities in networking computing devices	Lesson: 1 of 2	
Performance Indicator: Learners can describe the benefits and challenges of networking in different environments	Core Competencies: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.		
Reference: Computing Curriculum P.g. 16-18			
Activities For Learning & Assessment		Resources	Progression
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Display pictures or show a video of people communicating using phones, text messaging, video conferencing, etc. Help learners understand how they are all connected to each other.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Guide learners to discuss the benefits of networking in different environments (school, business, health, etc.).</p> <p>Benefits</p> <p>1. <i>Ease of accessibility</i> Modern computer networks are easy to explore. So, even if you are a kid or a person new to technology, you'll find it easy to connect.</p>		<p>Pictures of network topologies, sketch diagram, projector</p>	<p>Identifying the benefits and challenges of networking in different environments</p>

2. Flexibility

Here, flexibility means that different people will be able to explore different things as per their requirements. For this purpose, computer networks provide you a wide array of choices to share a particular piece of information. For example, e-mail or messaging apps like WhatsApp. So, there is flexibility for different users.

3. Convenient resource sharing

The main aim of a computer network is to enable sharing of resources among its users. You can use resources such as printers, scanners and photocopy machines that can be shared across multiple users. This resource sharing is important for big companies as they can use one single common network for connecting with their employees.

4. Connectivity

Computer Networks improve connectivity irrespective of a person's location. In these testing times, we can see live examples as we use video call apps or Google documents to connect with our friends and colleagues.

5. Security

Computer networks provide security through authorization. Authorization is done via user id and password. So, it ensures that when we log in, we are only able to do it when there is a perfect match between our details and the details stored in the data VVVVbase.

6. Great storage capacity

Organizations have an abundance of data that needs to be stored. For that purpose, they are required to store them in a central server. A central server is a remote server that is accessible to each and every employee. So, if in case one loses the data, others have it.

7. Reduced cost

Cost is one of the crucial factors that one needs to consider while evaluating the pros and cons of a particular technology. In networking, a central server is used that enables companies to store files in one place and thus reducing file storage expenses.

Guide learners to discuss the challenges of networking in different environments (school, business, health, etc.).

Challenges

1. Lack of robustness

Computer networks rely on the main server called the central server. If the central server malfunctions or there is an issue in the central server, then the entire network would stop functioning. So, this is a major disadvantage due to dependency on a single server.

2. Spread of computer virus

As computers in a network are interconnected, there is a high probability that if one of the computers is affected by the virus, others too can get affected. This spread can actually damage the entire system. Also, if the central server gets corrupted, then it's quite dangerous as the network depends on the central server.

3. Independence issues

The entire networking system is based on a centralized server, so it lacks independence. So, individual users lack the freedom to use the computer as per their wish.

4. Lack of productivity

Since a network has a lot of advantages and applications, it is certain that it results in simultaneous use of many services that cause distraction. Thus, due to employees focusing on a myriad of tasks, productivity issues are quite common.

5. Health issues

Computer network provides access to a gamut of services including entertainment, gaming, and movies. These result in making you addicted to the content and thus results in overuse of these services. This excessive screen time makes you feel lethargic, causes eye strain and body pain.

Reflection (10 mins)

We have learnt the benefits and challenges of networking in different environments.

Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework/Project Work/Community Engagement Suggestions

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Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory

Date: 1 ST JULY, 2022	DAY:	Subject: Computing
Duration:		Strand: Communication Networks
Class: B7	Class Size:	Sub Strand: Computer Networks
Content Standard: B7.3.1.1 Identify the concept of computer networking for global communications	Indicator: B7.3.1.1.4 Identify different environments where the various types of networks can be applied.	Lesson: 2 of 2
Performance Indicator: Learners can describe different environments where the various types of networks can be applied	Core Competencies: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.	
Reference: Computing Curriculum P.g. 16-18		
Activities For Learning & Assessment		
Starter (5 mins)		
Using questions and answers, revise the previous lesson with learners.		
Share performance indicators and introduce the lesson.		
Main (35 mins)		
Guide learners to identify different environments where the various types of networks can be applied.		
<ul style="list-style-type: none"> • <i>Marketing and sales:</i> – Computer networks are widely used in both marketing sales firms. These are used by marketing professionals to collect, exchange, and analyzes data relating to customer requirements and product development cycles. Teleshopping is also important part of sales applications that use order-entry computers or telephones connected to an order-processing network, and on-line reservation services for hotels airline and so on. • <i>Manufacturing:</i> – Now days, computer networks are used in a several aspects of manufacturing, including the manufacturing process itself. Two applications which use a network to provide necessary services are computer-assisted manufacturing (CAM) and computer –assisted designing (CAD) both of which permit multiple users to work on a project simultaneously. • <i>Financial Services:</i> – In Present, Financial services are completely dependent on computer networks. Main applications are credit history searches, foreign exchange and investment services, and Electronic Funds Transfer (EFT) that permits a user to transfer money without going into bank. 		
Resources		
Pictures of network topologies, sketch diagram, projector		
Progression		
Identifying different environments where the various types of networks can be applied.		

- *Teleconferencing: – With The help of teleconferencing conferences are possible to occur without the participants being in the same place. Applications include simple text conferencing, voice conferencing, and video conferencing.*
- *Cable Television:-Future Services provided by cable television network can include video on request, as well as the same information, financial and communications services currently provided by the telephone companies and computer networks.*
- *Information Services:- Network information services include bulletin boards and data banks. A World Wide Web site offering the technical specifications for a new product is an information service.*
- *Electronic Messaging:- Electronic mail (e-mail) is the most widely used network application.*
- *Electronic Data Interchange (EDI):- EDI permits business information to be transferred without using paper.*
- *Directory services: – By using directory services, it is possible to store the last of files in a central location to speed worldwide search operations.*
- *Cellular Telephone: – In the past, two parties desiring to use the services of the telephone company had to be linked by a fixed physical connection. But, in present cellular network make it possible to maintain wireless phone connections even while travelling over large distances.*

In groups, task learners to identify the business aspect of networking and how they can be turned into a lucrative business.

Have them to present their findings to the whole class.

Reflection (10 mins)

We have learnt the different environments where the various types of networks can be applied.

Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework/Project Work/Community Engagement Suggestions

- Identify 5 environments where the various types of networks can be applied

Cross-Curriculum Links/Cross-Cutting Issues

None

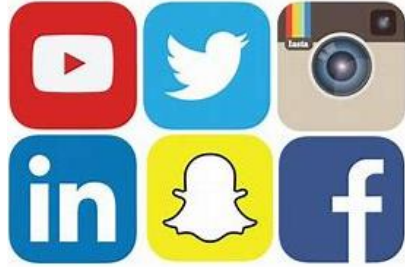
Potential Misconceptions/Student Learning Difficulties

The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory

WEEKLY LESSON NOTES – B7

WEEK 9

Date: 8 th JULY, 2022	DAY:	Subject: Computing	
Duration:		Strand: Communication Networks	
Class: B7	Class Size:	Sub Strand: Internet and Social Media	
Content Standard: B7.3.2.1 Demonstrate the use of Social Networking and Electronic Mail.	Indicator: B7.3.2.1.1 Identify the various types and uses of Social Media sites such as those for Social Networking	Lesson: 1 of 2	
Performance Indicator: Learners can describe uses of Social Media sites		Core Competencies: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.	
Reference: Computing Curriculum P.g. 16-18			
Activities For Learning & Assessment		Resources	Progression
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Guide learners to illustrate the use of social networking sites such as Facebook, LinkedIn, WhatsApp, etc.</p>		Pictures and videos	Identifying uses of Social Media sites



Facebook is a website which allows users, who sign-up for free profiles, to connect with friends, work colleagues or people they don't know, online. It allows users to share pictures, music, videos, and articles, as well as their own thoughts and opinions with however many people they like.

Users send "friend requests" to people who they may – or may not – know. Facebook has over 1 billion users. Once accepted, the two profiles are connected with both users able to see whatever the other person posts. "Facebookers" can post almost anything to their "timeline", a snapshot of what is happening in their social circle at any given time, and can also enter private chat with other friends who are online.

Guide learners to discuss ways of staying safe with using Facebook.

Example: Terms of service and privacy policy.

Guide learners to illustrate the use of social networking sites such as LinkedIn and access its importance WhatsApp

LinkedIn is a social network that focuses on professional networking and career development.

You can use LinkedIn to display your resume, search for jobs, and enhance your professional reputation by posting updates and interacting with other people.

LinkedIn is free, but a subscription version called LinkedIn Premium offers additional features like online classes and seminars, as well as insights into who's searching for and viewing your profile

Importance

A well written LinkedIn profile will give you credibility and establish you as a trustworthy potential employee. Every time a recruiter contacts you, you can be sure that they have looked at your profile.

Guide learners to illustrate the use of social networking sites such as WhatsApp and access its importance.

WhatsApp is free to download messenger app for smartphones. WhatsApp uses the internet to send messages, images, audio or video. The service is very similar to text messaging services, however, because WhatsApp uses the internet to send messages, the cost of using WhatsApp is significantly less than texting.

To use WhatsApp you need a compatible smartphone or tablet with a sim card, an internet connection, and a phone number. The app uses your phone number as its username, and your account is locked to the phone, although you can transfer your contacts over to new devices

Importance

- Stimulates a dynamic learning environment
- Facilitates rich interactions and 24×7 learning even outside the classroom
- Encourages real-time communication between teachers and students, and teachers and parents
- Fosters collaboration between students so they can learn better together
- Share educational resources to match the learning styles and needs of different students
- A familiar, comfortable interface that students love to use for learning

Reflection (10 mins)

We have learnt the uses of Social Media sites

Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework/Project Work/Community Engagement Suggestions


- Write four importance of facebook and WhatsApp.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory

Date: 8 th JULY, 2022	DAY:	Subject: Computing
Duration:		Strand: Communication Networks
Class: B7	Class Size:	Sub Strand: Internet and Social Media
Content Standard: B7.3.2.1 Demonstrate the use of Social Networking and Electronic Mail.	Indicator: B7.3.2.1.1 Identify the various types and uses of Social Media sites such as those for Social Networking	Lesson: 2 of 2
Performance Indicator: Learners can describe how microblogging platforms works.	Core Competencies: DL5.1: Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use it to solve a problem.	
Reference: Computing Curriculum P.g. 16-18		
Activities For Learning & Assessment		
Starter (5 mins)		
Using questions and answers, revise the previous lesson with learners.		
Share performance indicators and introduce the lesson.		
Main (35 mins)		
Brainstorm learners for the meaning of microblogging. Is an online broadcast medium that exists as a specific form of blogging. Microblogging is a combination of instant messaging and content production		
		
Using pictures, learners discuss some examples of microblogging. Examples: Tumblr, Medium, Blogger, Instagram, twitter, Pinterest, etc.		
Resources	Progression	
Pictures and videos	Identifying how microblogging platforms works	

<p>Demonstrate the use of microblogging platforms.</p> <p><u>Tumblr</u> is a blogging and social media tool that allows users to publish a "tumblelog", or short blog posts. Tumblr's major differentiator is the free-form nature of the site and the ability of users to heavily customize their own pages. This is the exception to the rule, as nearly all other social networks have standardized profile pages with limited design flexibility.</p> <p><u>How is Tumblr used?</u> Getting a page set up on Tumblr is similar to other social media networks. Users sign up for an account by providing an email address as well as creating a password, username and a URL for the page.</p> <p><u>Twitter</u> Twitter is a free social networking site where users broadcast short posts known as tweets. These tweets can contain text, videos, photos or links. To access Twitter, users need an internet connection or smart phone to use the app or website, Twitter.com. It is a microblogging service -- a combination of blogging and instant messaging -- for registered users to post, share, like and reply to tweets with short messages. Nonregistered users can only read tweets.</p> <p><u>How Twitter works</u> Users choose what they want to see on Twitter by following other users and companies and searching topics. Generally, the timeline reflects the users' preferences, but they may see retweets from people they follow and promoted Tweets, which are paid advertisements</p> <p>Reflection (10 mins) We have learnt how microblogging platforms works</p> <p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p>Take feedback from learners and summarize the lesson.</p>		
<p>Homework/Project Work/Community Engagement Suggestions</p>		
<p>State and explain how four of the microblogging platforms works</p>		
<p>Cross-Curriculum Links/Cross-Cutting Issues</p>		
<p>None</p>		
<p>Potential Misconceptions/Student Learning Difficulties</p>		
<p>The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory</p>		

WEEKLY LESSON NOTES – B7

WEEK 10

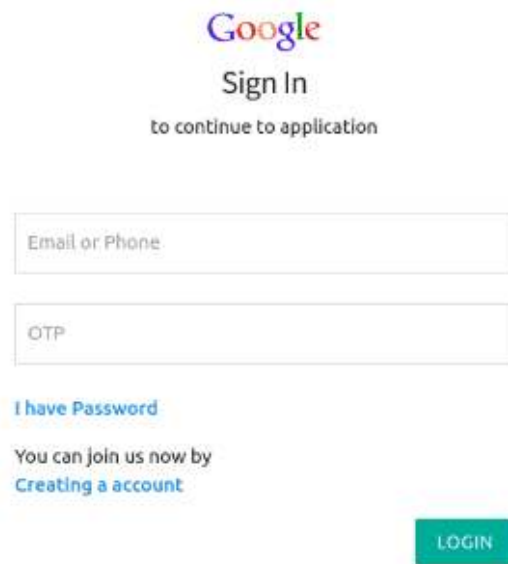
Date: 15 th JULY, 2022	DAY:	Subject: Computing
Duration:		Strand: Communication Networks
Class: B7	Class Size:	Sub Strand: Internet and Social Media
Content Standard: B7.3.2.1 Demonstrate the use of Social Networking and Electronic Mail.	Indicator: B7.3.2.1.2 Demonstrate the use of the following features of Electronic mail: Attachment and Address book	Lesson: 1 of 2
Performance Indicator: Learners can Demonstrating how to compose and send email messages	Core Competencies: CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 16-18		
Activities For Learning & Assessment		
Starter (5 mins)		
Using questions and answers, revise the previous lesson with learners.		
Share performance indicators and introduce the lesson.		
Main (35 mins)		
Revise with learners on some ways of sharing information.		
Example:		
<input type="checkbox"/> E-mail with/without Attachments <input type="checkbox"/> Instant Messaging (IM) <input type="checkbox"/> Websites and blogs <input type="checkbox"/> Sending a Fax		
Brainstorm learners for the meaning of Email.		
Email is a network communication system used to transmit messages from one networked computer to another over the Internet.		
Resources		Progression
Pictures and videos		Demonstrating how to compose and send email messages.

Demonstrate the steps involved in logging in into an email account.

Log In is the process by which an individual gains access to a computer system or a website by identifying and authenticating themselves with a username and a password. Log In is also known as Log On or Sign In.

How to Sign In / Log Into E-mail Account

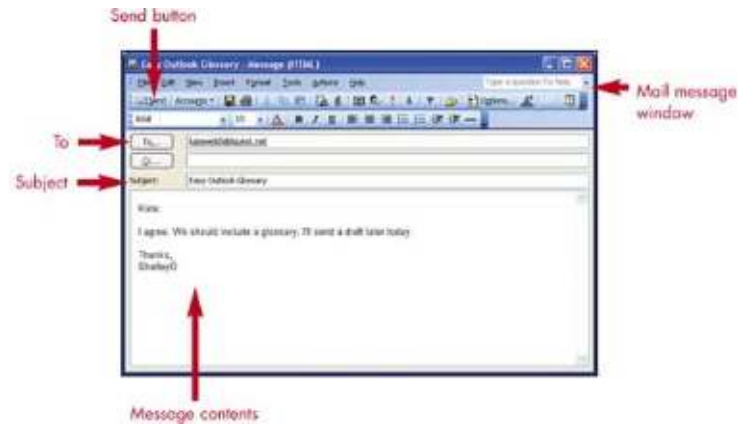
1. Open your e-mail service log in webpage (mail ISP). E.g. www.gmail.com or www.ymail.com
2. Type your e-mail username or user ID.
3. Type your password.
4. Click on Sign In or press Enter key to launch your e-mail account.



Guide learners to describe some terminologies in relation to email.

- From: is the location where the sender's email address is inserted.
- To: is the location where the original recipient(s) email address(es) is/are inserted.
- Carbon copy (Cc) is used to send the same information to other recipients apart from the original recipient.
- Blind carbon copy (Bcc) is used to secretly send the same information to other recipients.

- Subject is the location where the title/theme of the email message is inserted before sending a message.



Guide learners to demonstrate the steps in creating and sending email.

To compose email means to create a message in the form of text entered from the keyboard with or without an attachment.

Composing E-mail Messages

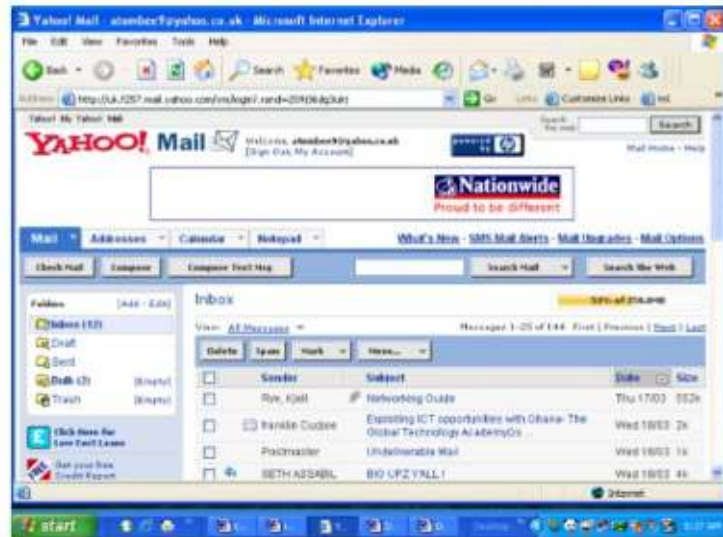
- Log into your e-mail account.
- Click the Create Mail (compose) button . The New Message window appears.
- Type the recipient's e-mail address or add recipient from your Address Book in the To: box .
- To send a copy of a message to someone, click in the Cc: field and/or the Bcc: field and repeat Steps 3 to enter their e-mail addresses.
- Click the Subject field and enter a subject for the e-mail.
- Click the Message Body, in the lower pane, then type the message as you would in a word processor.
- To send a file or picture along with your message click the Attach button on the toolbar and then select the file in the Insert Attachment dialog box.
- When you're finished with the message, click the Send Message button on the toolbar.
- A confirmation will be sent to Outbox
- Click on 'sign out' to close page.

Reflection (10 mins)

<p>We have learnt how to compose and send email messages.</p> <p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p>Take feedback from learners and summarize the lesson.</p>		
Homework/Project Work/Community Engagement Suggestions		
<ul style="list-style-type: none"> • Describe how to compose and send email messages 		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory		

Date: 15 th JULY, 2022	DAY:	Subject: Computing
Duration:		Strand: Communication Networks
Class: B7	Class Size:	Sub Strand: Internet and Social Media
Content Standard: B7.3.2.1 Demonstrate the use of Social Networking and Electronic Mail.	Indicator: B7.3.2.1.2 Demonstrate the use of the following features of Electronic mail: Attachment and Address book	Lesson: 2 of 2
Performance Indicator: Learners can demonstrate how to receive and reply and forward email.	Core Competencies: CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 16-18		
Activities For Learning & Assessment		
Starter (5 mins)		
Using questions and answers, revise the previous lesson with learners.		
Share performance indicators and introduce the lesson.		
Main (35 mins)		
Guide learners to demonstrate the steps in receiving email.		
<u>To Read/Access or Check Your Malls Messages</u>		
<ul style="list-style-type: none"> • Log on to your search engine. (e.g. yahoo.mail.com/yahoo.co.uk) • Click on mail and wait for it to open • Type your user name (ID) and password in box provided. • Click "Sign In or press the enter key. • Go to your box by clicking Inbox/Checkmall • Click on the message in your box that you want to read (preferably the subject of the mail). • Click on segment to close you mail. • If a message has one or more files attached to it, a paper clip will also appear in this area. To open any file attached to a message, click the paper clip icon and then click the file you want to open from the list that appears from the paper clip. 		
Resources	Progression	
Pictures and videos	Demonstrating how to receive and reply and forward email.	

- Using Reading Pane, click the Previous and Next buttons on the toolbar to access previous and next e-mail messages in the Inbox.
- Any new, unread message appear in bold and have a closed envelop icon next to them.



Once you have read the message you can;

- ✓ reply straight away to author,
- ✓ forward the message to someone else or
- ✓ delete the message.

Guide learners to demonstrate replying to and forwarding email

Reply to an Email

When reading your email, you will notice another series of commands. Click on Reply. This will take you to the Compose screen, where you can compose (write) your reply on top of the message received.

Replying E-mail Messages

1. Find and open the message you want to reply to.
2. Click the reply option you want to use: Reply to Author or Reply to All .
3. Type your reply in the message body above the email message you're replying.

4. To send a file or picture along with your message click the Attach button on the toolbar and then select the file in the Insert Attachment dialog box.

5. Click the Send button on the toolbar when you're finished.

Forward an E-mal

Another command is to forward an email. You might do this if you have received some information you want to share with another person who did not receive the message. Click on the Forward command. This will take the message you want to forward to the compose screen. You can then write in the address of the person whom you wish to forward the email to. When you forward an email, you still retain a copy for yourself.

Have learners to demonstrate, giving reasons for using From:, To: cc:, bcc: and subject features when sending an email.

Reflection (10 mins)

We have learnt to reply and forward email

Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework/Project Work/Community Engagement Suggestions

- describe how to access and reply email messages.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory

WEEKLY LESSON NOTES – B7

WEEK 11

Date: 22 nd JULY, 2022	DAY:	Subject: Computing
Duration:		Strand: Communication Networks
Class: B7	Class Size:	Sub Strand: Information Security
Content Standard: B7.3.3.1. Recognize data threats and means of protection	Indicator: B7.3.3.1.1 Discuss the key principles of information security	Lesson: 1 of 2
Performance Indicator: Learners can describe the principles of information security.	Core Competencies: CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 18-20		
Activities For Learning & Assessment		
Starter (5 mins) Using questions and answers, revise the previous lesson with learners. Share performance indicators and introduce the lesson.	Resources Pictures and videos	Progression Describing the principles of information security.
Main (35 mins) Brainstorm learners to explain the meaning of information security. Information security covers the tools and processes that organizations use to protect information. Research in pairs the key principles of information security. Example: confidentiality, integrity and availability Guide learners to discuss the three key principles of information security. <u>Confidentiality</u> Confidentiality measures are designed to prevent unauthorized disclosure of information. The purpose of the confidentiality principle is to keep personal information private and to ensure that it is visible and accessible only to those individuals who own it or need it to perform their organizational functions.		

Integrity

Consistency includes protection against unauthorized changes (additions, deletions, alterations, etc.) to data. The principle of integrity ensures that data is accurate and reliable and is not modified incorrectly, whether accidentally or maliciously.

Availability

Availability is the protection of a system's ability to make software systems and data fully available when a user needs it (or at a specified time). The purpose of availability is to make the technology infrastructure, the applications and the data available when they are needed for an organizational process or for an organization's customers.

Guide learners to research and analyze scenarios involving information security.

Example:

Bob, driving down a main street in his patrol car notices smoke coming out of a warehouse. His partner, Alice, reports the emergency from her car. Alice enters the address of the building, a brief description of its location (i.e., north west corner), and an emergency level.

In addition to a fire unit, she requests several paramedic units on the scene given that area appear to be relatively busy. She confirms her input and waits for an acknowledgment.

John, the Dispatcher, is alerted to the emergency by a beep of his workstation. He reviews the information submitted by Alice and acknowledges the report. He allocates a fire unit and two paramedic units to the Incident site and sends their estimated arrival time (ETA) to Alice.

Alice received the acknowledgment and the ETA.

Reflection (10 mins)

We have learnt the key principles of information security.

Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework/Project Work/Community Engagement Suggestions

- Identify and explain the key principles of information security

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory

Date: 22 nd JULY, 2022	DAY:	Subject: Computing	
Duration:		Strand: Communication Networks	
Class: B7	Class Size:	Sub Strand: Information Security	
Content Standard: B7.3.3.1. Recognize data threats and means of protection	Indicator: B7.3.3.1.2 Explore the legal issues regarding intellectual property rights	Lesson: 2 of 2	
Performance Indicator: Learners can discuss legal issues regarding intellectual property rights		Core Competencies: CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 18-20			
Activities For Learning & Assessment		Resources	Progression
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Brainstorm learners to explain the following terms..</p> <p>Intellectual Property (IP): <i>Intellectual Property (IP) is the property that is as a result of the creativity of the mind of a person.</i></p> <p>Intellectual Property Right (ILR) : <i>Intellectual Property Right is the exclusive right given to inventors for their Intellectual Property. It is also the exclusive right given to inventors on the production, sale, hiring, etc. of the things they have invented.</i></p> <p>Guide learners to discuss the types of Intellectual Property.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Trademark <input type="checkbox"/> Patent <input type="checkbox"/> Trade Secrete <input type="checkbox"/> Copyright 		Pictures and videos	Demonstrating how to compose and send email messages.

guide learners to differentiate between the various legal issues mentioned.
(e.g. Copyright, Patent, Trademark, Piracy, Copyright Infringement)

Trademark

Trademark is formally registered name, word, logo, symbol or image that is used to identify the manufacturer or distributor of products or services. The symbol for trademark is Tm or ®.

Patent

Patent is an exclusive right given to inventors to manufacture, use or sell inventions for limited period of time.

Piracy: *Piracy is the unauthorized copying and distribution of copyrighted materials. A person who is copying and distributing without authorization is a PIRATE. Pirates produce the counterfeits of the original materials and sell them at low prices.*

Plagiarism: *Plagiarism is the taking of someone's work or idea and claiming it as your own. It is a criminal act and is punishable under the copyright laws of Ghana.*

Copyright

Copyright is the legal right given to inventors of original works on the use, production, reproduction, rental and sale of their works. In other words, it's the right that does not allow individuals to copy intellectual property of the original owner. It controls the production of intellectual property right.

Copyright Infringements

Copyright infringement is an act of reproducing, copying, imitating, selling, distributing, using, exhibiting, etc. a copyright product or material without permission from the inventor.

Guide learners to discuss issues pertaining to copyright (e.g. freeware, shareware, crippleware).

Freeware *is software, most often proprietary, that is distributed at no monetary cost to the end user. There is no agreed-upon set of rights, license, or EULA that defines freeware unambiguously; every publisher defines its own rules for the freeware it offers.*

Shareware *is software that is distributed free on a trial basis with the understanding that the user may need or want to pay for it later. Some software developers offer a shareware version of their program with a built-in expiration date (after 30 days, the user can no longer get access to the program).*

Crippleware *has been defined in realms of both computer software and hardware. In software, crippleware means that "vital features of the program such as printing or the ability to save files are disabled until the user purchases a registration key".*

<p>Guide learners to discuss the consequences associated with breaking these laws.</p> <p>Reasons for Copyright Protection (Laws)</p> <ul style="list-style-type: none"> • <i>To encourage people to be innovative and invent new things.</i> • <i>To ensure that inventors gain financial benefits from their hard work.</i> • <i>To increase the revenue of the Nation as it is easy to tax copyrighted materials.</i> • <i>To protect the works of inventors.</i> • <i>To promote development because new things will always be produced.</i> <p>Consequences of Breaking Copyright Laws</p> <ul style="list-style-type: none"> • <i>Fine, imprisonment or both on the culprits / offenders.</i> • <i>Confiscation of items.</i> • <i>Discourages people from inventing new things.</i> • <i>Inventors lose financial rewards from their inventions.</i> • <i>Government loses revenue in the form of taxes and levies.</i> <p>Reflection (10 mins)</p> <p>We have learnt how to compose and send email messages.</p> <p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p>Take feedback from learners and summarize the lesson.</p>		
Homework/Project Work/Community Engagement Suggestions		
<ul style="list-style-type: none"> • What is copyright law? • Identify any four importance of the copyright law • State four consequence of copyright infringement. 		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory		

WEEKLY LESSON NOTES – B7

WEEK 12

Date: 29 th JULY, 2022	DAY:	Subject: Computing	
Duration:		Strand: Communication Networks	
Class: B7	Class Size:	Sub Strand: Information Security	
Content Standard: B7.3.3.1. Recognize data threats and means of protection	Indicator: B7.3.3.1.3 Evaluate information security forensic auditing and criminal laws against offenders		Lesson: 1 of 2
Performance Indicator: Learners can describe the criminal laws against offenders of information security.		Core Competencies: CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 20			
Activities For Learning & Assessment		Resources	Progression
<p>Starter (5 mins)</p> <p>Using questions and answers, revise the previous lesson with learners.</p> <p>Share performance indicators and introduce the lesson.</p> <p>Main (35 mins)</p> <p>Engage learners to watch a video of how offenders of data security breach are identified.</p> <p>Guide learners to discuss the laws protecting data and the applicable sanctions for their breach. Identify some common occurrences of data security breaches that people in the community overlook and their corresponding sanctions.</p> <p>Reflection (10 mins)</p>		Pictures and videos	Evaluating information security forensic auditing and criminal laws against offenders.

<p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p>Take feedback from learners and summarize the lesson.</p>		
<p>Homework/Project Work/Community Engagement Suggestions</p>		
<ul style="list-style-type: none"> • Identify and explain criminal laws against offenders of information security. 		
<p>Cross-Curriculum Links/Cross-Cutting Issues</p>		
<p>None</p>		
<p>Potential Misconceptions/Student Learning Difficulties</p>		
<p>The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory</p>		