SECOND TERM
WEEKLY LESSON NOTES – B8
WEEK 8

Week Ending: 26-05-2023	DAY:		Subject: Computing	
Duration: 60mins			Strand: Productivity Software	
Class: B8	Class Size:		Sub Strand: Introduction to Electronic Spreadsheet	
Content Standard: B8.2.4.1. Demonstrate How to Use the Spreadsheet (using functions and complex formulas)		Indicator: B8.2.4.1.2 Demonstrate how to create complex formulas		Lesson: 1 of 2
Performance Indicator: Learners can demonstrate how to create complex formulas			Core Competencies: CC8.2: CP6.1	
Reference: Computing Curriculum Pg. 32				

Activities For Learning & Assessment	Resources	Progression
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. **Main (35mins)** Guide learners to create complex formulas (e.g. Finding Percentages, To create a formula for finding a percentage in Excel, you can use the following steps: *1. Determine the numbers you want to calculate the percentage of. For example, if you want to find 20% of 100, you have a base number of 100 and a percentage of 20%.* *2. Decide where you want to display the result. Choose a cell where you want the percentage result to appear.* *3. In the selected cell, start typing the formula. Begin with an equals sign (=) to indicate that you're entering a formula.* *4. Enter the base number followed by the multiplication operator (*). In our example, the base number is 100, so you would enter "100*".* *5. Next, enter the percentage value divided by 100. Since percentages are represented as decimals in calculations, divide the percentage value by 100. In our example, the percentage is 20%, so you would enter "20/100".* *6. Close the formula with a closing parenthesis ")". The complete formula would look like "=100*(20/100)".*	Pictures and videos	Creating complex formulas

7. Press Enter to calculate the result. The cell will display the calculated percentage. In this case, the result would be 20, indicating 20% of 100.

Commissions
To create a formula for finding commissions in Excel, you can use the following steps as an example:

1. Determine the commission rate or percentage. This is the rate at which the commission is calculated. For instance, let's say the commission rate is 5%.

2. Identify the sales amount on which the commission is based. For example, if the sales amount is ₵1,000, you'll use this value in the formula.

3. Decide where you want to display the commission result. Choose a cell where you want the commission amount to appear.

4. In the selected cell, start typing the formula. Begin with an equals sign (=) to indicate that you're entering a formula.

5. Enter the sales amount followed by the multiplication operator (*). In our example, the sales amount is ₵1,000, so you would enter "1000*".

6. Next, enter the commission rate divided by 100 to convert it to a decimal. Since commission rates are typically represented as percentages, divide the commission rate by 100. In our example, the commission rate is 5%, so you would enter "5/100".

7. Close the formula with a closing parenthesis ")". The complete formula would look like "=1000*(5/100)".

8. Press Enter to calculate the result. The cell will display the commission amount. In this case, the result would be ₵50, indicating a 5% commission on a ₵1,000 sale.

Interest Rates
To create a formula for finding interest rates in Excel, you can follow these steps:

1. Determine the necessary information for calculating the interest rate. You will need the principal amount (the initial sum of money), the time period (in years), and the total amount (including the interest) at the end of the time period.

2. Decide where you want to display the interest rate result. Choose a cell where you want the interest rate to appear.

3. In the selected cell, start typing the formula. Begin with an equals sign (=) to indicate that you're entering a formula.

4. Enter the formula for calculating the interest rate. The formula for finding the interest rate is typically derived from the compound interest formula:
 =((Total Amount / Principal Amount)^(1/Time Period) - 1) * 100

5. Replace "Total Amount" with the cell reference containing the total amount at the end of the time period.

6. Replace "Principal Amount" with the cell reference containing the initial principal amount.

7. Replace "Time Period" with the cell reference containing the time period in years.

8. Close the formula with a closing parenthesis ")". The complete formula would look like:
   =((B2/B1)^(1/B3) - 1) * 100

9. Press Enter to calculate the result. The cell will display the interest rate as a percentage.

Have learners understand that creating complex formulas requires practice and experimentation.

Learners use Excel's help resources, tutorials, and community forums to enhance their understanding and proficiency in building complex formulas.

Reflection *(10mins)*
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
Let learners in groups create complex formulas
Cross-Curriculum Links/Cross-Cutting Issues
None
Potential Misconceptions/Student Learning Difficulties
None

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Duration: 60mins			Strand: Productivity Software	
Class: B8	Class Size:		Sub Strand: Introduction to Electronic Spreadsheet	
Content Standard: B8.2.4.1. Demonstrate How to Use the Spreadsheet (using functions and complex formulas)		Indicator: B8.2.4.1.3. Demonstrate how to copy formulas and references		Lesson: 2 of 2
Performance Indicator: Learners can demonstrate how to copy formulas and references			Core Competencies: CC8.2: CP6.1	
Reference: Computing Curriculum Pg. 32				

Activities For Learning & Assessment	Resources	Progression
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. **Main (35mins)** Demonstrate the procedure for copying and pasting formulas in a worksheet. Explore how to reference cells and ranges in a worksheet. 3. Demonstrate the use of relative and absolute cell referencing in creating formulas. Explore how to correct common formula errors. Complete a project that involves creating a set of formulas with common functions (e.g. simple interest formula) **Reflection (10mins)** 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.	Pictures and videos	Copying formulas and references

Homework/Project Work/Community Engagement Suggestions
Let learners in groups demonstrate how to copy formulas and references
Cross-Curriculum Links/Cross-Cutting Issues
None
Potential Misconceptions/Student Learning Difficulties
None