

# FIRST TERM

## WEEKLY LESSON NOTES

### WEEK 5

<b>Week Ending:</b> 03-11-2023	<b>DAY:</b>	<b>Subject:</b> Mathematics
<b>Duration:</b> 100MINS		<b>Strand:</b> Number
<b>Class:</b> B9	<b>Class Size:</b>	<b>Sub Strand:</b> Number Operations
<b>Content Standard:</b> B9.1.2.2 Apply the understanding of addition, subtraction, multiplication and division of decimal numbers to solve problems, and round answers to given decimal places and significant figures		<b>Indicator:</b> B9.1.2.2.1 Solve operations involving addition, subtraction, multiplication and division using word problems.
		<b>Lesson:</b> 1 of 2
<b>Performance Indicator:</b> Learners can apply a combination of basic operations (addition, subtraction, multiplication, division) to solve these word problems.		<b>Core Competencies:</b> Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)
<b>References:</b> Mathematics Curriculum Pg. 169		
<b>New words:</b> Word Problem, Operations, Solution, Interpretation		
<b>Phase/Duration</b>	<b>Learners Activities</b>	<b>Resources</b>
<b>PHASE 1: STARTER</b>	<p>Present a relatable scenario such as: "Imagine you went to a store with ₦50. You bought a book for ₦15 and a shirt for ₦20. How much money do you have left?" Then, ask, "What mathematical operations did you use to solve that?"</p> <p>Share performance indicators and introduce the lesson.</p>	
<b>PHASE 2: NEW LEARNING</b>	<p>Guide learners to create word problems involving a combination of two or more basic operations. Divide learners into pairs or small groups.</p> <p>Each group creates their own word problems that involve at least two of the basic operations.</p> <p>Encourage creativity, asking learners to frame problems around real-life scenarios they might encounter.</p> <p>Solve the created story problems. Swap the created problems between groups. Each group now attempts to solve the word problems created by their peers.</p> <p>Example: A trader sells oranges from two baskets, A and B. Basket A contained 85 oranges and she sold 48. She sold 59 oranges from basket B and was left with the same number of oranges as in Basket A. How many oranges were originally in Basket B?</p> <p><u>Solution</u> From Basket A: She originally had 85 oranges. She sold 48 oranges.</p>	Number cards

	<p>Therefore, the number of oranges left in Basket A = <math>85 - 48 = 37</math> oranges.</p> <p>From the problem, we know she sold 59 oranges from Basket B and was then left with the same number of oranges as in Basket A after she sold some.</p> <p>Thus, the number of oranges left in Basket B after selling 59 = 37 oranges.</p> <p>Let <math>x</math> be the original number of oranges in Basket B.</p> <p>Therefore, <math>x - 59 = 37</math>.</p> <p>Adding 59 to both sides of the equation, we get:  <math>x = 37 + 59</math>  <math>x = 96</math>.</p> <p>So, Basket B originally contained 96 oranges.</p> <p>During this time, move around the room to guide and assist where necessary.</p> <p>After a set time, have each group present the problem they received and their solution, allowing for a discussion and clarification if answers vary.</p> <p><u>Assessment</u></p> <ol style="list-style-type: none"> <li>1. Lisa had 20 apples. She gave 5 apples to her friend and then bought 10 more. How many apples does Lisa have now?</li> <li>2. A factory produces 200 toys every day. After a week, they sent 800 toys to a retailer. How many toys are left in the factory?</li> <li>3. Mike read 50 pages of a book on Monday. On Tuesday, he read twice the number of pages he read on Monday. How many pages has he read in total by the end of Tuesday?</li> <li>4. Sarah baked 100 cookies for a bake sale. She sold <math>\frac{3}{4}</math> of the cookies and gave 10 cookies to her friends. How many cookies does she have left?</li> </ol>	
<p><b>PHASE 3:</b> <b>REFLECTION</b></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>	

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<b>Content Standard:</b> B9.1.2.2 Apply the understanding of addition, subtraction, multiplication and division of decimal numbers to solve problems, and round answers to given decimal places and significant figures		<b>Indicator:</b> B9.1.2.2.2 Solve word problems involving the four basic operations and round the answers to the nearest two decimal figures or to some significant figures
		<b>Lesson:</b> 2 of 2
<b>Performance Indicator:</b> Learners can apply the four basic operations to solve these word problems and round their answers to the nearest two decimal figures or to the appropriate significant figures.		<b>Core Competencies:</b> Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)
<b>References:</b> Mathematics Curriculum Pg. 169		
<b>New words:</b> Word Problem, Operations, Rounding, Significant Figures		
<b>Phase/Duration</b>	<b>Learners Activities</b>	<b>Resources</b>
PHASE 1: <b>STARTER</b>	Display a word problem like: "A pizza slice costs ₵2.37, and a drink costs ₵1.28. How much will 2 slices of pizza and 2 drinks cost together?" Solve the problem and then ask, "If we needed to give a rounded estimate, what would the total cost be when rounded to the nearest dollar?"  Share performance indicators and introduce the lesson.	
PHASE 2: <b>NEW LEARNING</b>	Guide learners to solve word problems and practice rounding. Provide learners with a set of word problems that require a combination of the four basic operations to solve.  After solving each problem, learners should round their answer to the nearest two decimal figures or as the question specifies.  Allow learners to collaborate in pairs, discussing their approach and solution to each problem.  Engage learners to review and discuss solutions. Choose a few problems from the set and solve them on the board, ensuring learners understand each step. Example: The price of a jacket is three times that of a shirt. The price of a jacket is GH₵560.65. Mr Mensa bought two of the jackets and four shirts for his twin sons. Calculate the total amount Mr Mensa paid for the items, correct your answer to: $\alpha$ ) two decimal places $\beta$ )three significant figures  <u>Solution</u> Given that the price of a jacket is GH₵560.65 and it is three times the price of a shirt, we can determine the price of the shirt: Let the price of the shirt be x.	Number cards

	<p>Given: <math>3x = \text{GH}\text{¢}560.65</math>  To find <math>x</math>, divide both sides by 3:  <math>x = \text{GH}\text{¢}560.65 / 3</math>  <math>x = \text{GH}\text{¢}186.88</math> (rounded to two decimal places)</p> <p>So, the price of a shirt is approximately <math>\text{GH}\text{¢}186.88</math>.</p> <p>Total Amount Mr. Mensa Paid:  He bought two jackets and four shirts.  Total for jackets = <math>2 * \text{GH}\text{¢}560.65 = \text{GH}\text{¢}1,121.30</math>  Total for shirts = <math>4 * \text{GH}\text{¢}186.88 = \text{GH}\text{¢}747.52</math></p> <p>Combine the two amounts:  Total amount = <math>\text{GH}\text{¢}1,121.30 + \text{GH}\text{¢}747.52</math>  Total amount = <math>\text{GH}\text{¢}1,868.82</math></p> <p><i>a) Two Decimal Places:</i>  The total amount is already given to two decimal places as <math>\text{GH}\text{¢}1,868.82</math>.</p> <p><i>β) Three Significant Figures:</i>  To round <math>\text{GH}\text{¢}1,868.82</math> to three significant figures, we consider the first three non-zero digits from the left and round accordingly.  So, <math>\text{GH}\text{¢}1,868.82</math> becomes <math>\text{GH}\text{¢}1,870</math> when rounded to three significant figures.</p> <p>Thus:  <i>a) Mr. Mensa paid <math>\text{GH}\text{¢}1,868.82</math>.</i>  <i>β) Mr. Mensa paid approximately <math>\text{GH}\text{¢}1,870</math> to three significant figures.</i></p> <p>Emphasize the rounding process, showcasing how to round to the nearest two decimal figures or to other significant figures as needed.</p> <p><u>Assessment</u></p> <ol style="list-style-type: none"> <li>John has <math>\text{¢}45.78</math>. He spends <math>\text{¢}12.32</math> on a book and <math>\text{¢}18.65</math> on a shirt. How much does he have left, rounded to the nearest dollar?</li> <li>A factory produces 135.45 toys every day. How many toys would it produce in a week (7 days), rounded to two decimal places?</li> <li>Mary's garden has an area of 250.75 square meters. She wants to divide it into 3 equal sections. How big will each section be, rounded to two decimal places?</li> <li>Tom drives 167.85 miles on Monday and 152.48 miles on Tuesday. If he divides the total distance by 2 to find the average, what is the average distance he drives per day, rounded to the nearest mile?</li> </ol>	
<p><b>PHASE 3: REFLECTION</b></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>	