

## SECOND TERM LESSON PLAN

## MATHEMATICS – B7

## WEEK 2

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| <b>Date:</b> 20 <sup>TH</sup> MAY, 2022                                                                                                                                                                          | <b>Period:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Subject:</b> Mathematics                                                   |
| <b>Duration:</b> 50MINS                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Strand:</b> Number                                                         |
| <b>Class:</b> B7                                                                                                                                                                                                 | <b>Class Size:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Sub Strand:</b> Ratios and Proportion                                      |
| <b>Content Standard:</b><br>B7.1.4.1 Demonstrate an understanding of the concept of ratios and its relationship to fractions and use it to solve problems that involve rates, ratios, and proportional reasoning | <b>Indicator:</b><br>B7.1.4.1.3 Make tables of equivalent ratios (written as common fractions) relating quantities that are proportional.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Lesson:</b>                                                                |
| <b>Performance Indicator:</b>                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Core Competencies:</b><br>Critical Thinking and Problem solving (CP)       |
| <b>References:</b> Mathematics Curriculum Pg. 25-26                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                               |
| <b>Phase/Duration</b>                                                                                                                                                                                            | <b>Learners Activities</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Resources</b>                                                              |
| <b>PHASE 1: STARTER</b>                                                                                                                                                                                          | Revise with learners on the previous lesson.<br>Call volunteer learners to the board to solve sample questions.<br><br>Introduce the lesson by sharing performance indicators.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                               |
| <b>PHASE 2: NEW LEARNING</b>                                                                                                                                                                                     | Guide learners to use of application of proportion in solving problems in maths.<br>1. Find the total ratio.<br>The ratio $x:y$ gives you $(x+y)$<br>2. Find what one part is. Thus the part corresponding to $x$ , $y$ or $z$ . the share corresponding to $x$ can be found by using the fraction $\frac{x}{x+y}$ . Similarly $\frac{y}{x+y}$<br><br>Example: Kafui, Adoley and Jantuah shared an amount of money in the ratio of their ages. Kafui is 36 years old, Adoley is 48years and Jantuah is 24years old. If Jantuah received GH¢24000, how much money did they share?<br><br>First write down their ratios;<br>Kafui : Adoley : Jantuah = 36 : 48 : 24<br><br>Their equivalent ratio will be = 3 : 4 : 2<br><br>Find their total ratio = 9<br><br>Now find what one part is: Jantuah = 24000<br>that is 2 : 24000<br><br>let GH¢ $a$ be the amount shared.<br>Kafui's share = $\frac{3}{9} a$ Adoley's share = $\frac{4}{9} a$ | Counters, bundle and loose straws<br>base ten cut square,<br>Bundle of sticks |

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|                                        | <p>Jantuah's share = <math>\frac{3}{9} \times a = 24000</math><br/> <math>a = \frac{9 \times 24000}{3} = 72000</math><br/>         therefore the total amount shared is GH¢72000</p> <p>Have learners go ahead to find Kafui and Adoley's share.</p> <p>Let learners practice with more examples.</p> <p><u>Assessment</u></p> <ol style="list-style-type: none"> <li>1. A man shares his money between his sons Kofi and Kwaku in the ratio 2 : 3. If Kofi's share is 100, find the amount shared and kwaku's share.</li> <li>2. A green paint is mixed from blue and yellow paint in the ratio 3 : 5. How much of each color is needed to make 40liters of his green paint?</li> </ol> |  |
| <p>PHASE 3:<br/> <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>Date:</b> 20 <sup>TH</sup> MAY, 2022                                                                                                                                                                          | <b>DAY:</b>                                                                                                                                            | <b>Subject:</b> Mathematics                                             |
| <b>Duration:</b> 50MINS                                                                                                                                                                                          |                                                                                                                                                        | <b>Strand:</b> Number                                                   |
| <b>Class:</b> B7                                                                                                                                                                                                 | <b>Class Size:</b>                                                                                                                                     | <b>Sub Strand:</b> Ratios and Proportion                                |
| <b>Content Standard:</b><br>B7.1.4.1 Demonstrate an understanding of the concept of ratios and its relationship to fractions and use it to solve problems that involve rates, ratios, and proportional reasoning | <b>Indicator:</b><br>B7.1.4.1.4 Use the proportional reasoning to find missing values in the tables, and plot pairs of values on the coordinate plane. | <b>Lesson:</b>                                                          |
| <b>Performance Indicator:</b><br>Learners can find missing values in the tables, and plot pairs of values on the coordinate plane                                                                                |                                                                                                                                                        | <b>Core Competencies:</b><br>Critical Thinking and Problem solving (CP) |
| <b>References:</b> Mathematics Curriculum Pg. 25-26                                                                                                                                                              |                                                                                                                                                        |                                                                         |

| Phase/Duration               | Learners Activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Resources |    |     |     |   |    |     |    |   |   |    |    |    |    |    |    |     |    |     |    |                                                                               |
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| <b>PHASE 1: STARTER</b>      | <p>Revise with learners on the previous lesson.<br/>Call volunteer learners to the board to solve sample questions.</p> <p>Introduce the lesson by sharing performance indicators.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |    |     |     |   |    |     |    |   |   |    |    |    |    |    |    |     |    |     |    |                                                                               |
| <b>PHASE 2: NEW LEARNING</b> | <p>Guide learners to use the proportional reasoning to find missing values in the tables, and plot pairs of values on the coordinate plane</p> <p>Have learners find the missing value marked <math>x</math> in a table of equivalent ratios.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>3</td><td>10</td></tr> <tr><td>6</td><td><math>x</math></td></tr> <tr><td>9</td><td>30</td></tr> <tr><td><math>y</math></td><td>40</td></tr> </table> <p><math>= \frac{x}{6} = \frac{10}{3}</math> means the value of <math>x = \frac{10}{3} \times 6 = \frac{60}{3} = 20</math></p> <p>Engage learners to practice with more examples.</p> <p><u>Assessment</u></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>4</td><td>8</td><td>12</td><td>16</td><td>20</td><td>24</td></tr> <tr><td>15</td><td>30</td><td><math>m</math></td><td>60</td><td><math>n</math></td><td>90</td></tr> </table> <p>Find the values of <math>m</math> and <math>n</math>.</p> | 3         | 10 | 6   | $x$ | 9 | 30 | $y$ | 40 | 4 | 8 | 12 | 16 | 20 | 24 | 15 | 30 | $m$ | 60 | $n$ | 90 | Counters, bundle and loose straws<br>base ten cut square,<br>Bundle of sticks |
| 3                            | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |    |     |     |   |    |     |    |   |   |    |    |    |    |    |    |     |    |     |    |                                                                               |
| 6                            | $x$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |    |     |     |   |    |     |    |   |   |    |    |    |    |    |    |     |    |     |    |                                                                               |
| 9                            | 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |    |     |     |   |    |     |    |   |   |    |    |    |    |    |    |     |    |     |    |                                                                               |
| $y$                          | 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |    |     |     |   |    |     |    |   |   |    |    |    |    |    |    |     |    |     |    |                                                                               |
| 4                            | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 12        | 16 | 20  | 24  |   |    |     |    |   |   |    |    |    |    |    |    |     |    |     |    |                                                                               |
| 15                           | 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $m$       | 60 | $n$ | 90  |   |    |     |    |   |   |    |    |    |    |    |    |     |    |     |    |                                                                               |
| <b>PHASE 3: REFLECTION</b>   | <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |    |     |     |   |    |     |    |   |   |    |    |    |    |    |    |     |    |     |    |                                                                               |