

**Year Group:** YEAR 6

**Strand:** Number

| Topic:<br>Fractions, Decimal,<br>Percentages                | Strategies   | Useful references   |
|---|--|---|
| a. Equivalent fractions                                     | <ol style="list-style-type: none"><li>1. Use the fraction wall</li><li>2. Sharing a bar of chocolate</li><li>3. Using 2D shape to represent a particular fraction</li></ol>  | NIM Book 6 page 41, 44-45<br>OIPM 6 pages 24-27   |
| b. Relationship between fractions and decimals              | <ol style="list-style-type: none"><li>1. Long division</li><li>2. short division</li></ol>   | <a href="https://www.youtube.com/watch?v=HdU_rf7eMTI">https://www.youtube.com/watch?v=HdU_rf7eMTI</a><br><a href="https://www.youtube.com/watch?v=SLze82Zcc4Y">https://www.youtube.com/watch?v=SLze82Zcc4Y</a>  |
| c. Changing Mixed numbers to improper fractions             | Step 1: Multiply the denominator by the whole number<br>Step 2: Add the product to the numerator<br>Step 3: you write the answer and keep the denominator in its original position   | NIM page 42-43<br>OIPM 6 7 workbook pages 37 and 38   |
| d. changing fractions to percentages                        | <ol style="list-style-type: none"><li>1. Multiply the fraction by 100</li></ol> NB: Remember every whole number has an imaginary denominator of 1.<br><ol style="list-style-type: none"><li>2. Simplify the result</li></ol>   | NIM 6- page 95<br><a href="https://www.google.com.gh/url?sa=t&amp;source=web&amp;rct=j&amp;url=https://www.mathsisfun.com/convert-fractions-percents.html&amp;ved=0ahUKEwif_57e5ezRAhXMhQKHyaTDfYQFggaMAE&amp;usg=AFQjCN G_xVHN-XUXImGXxE-OiQkMozL7bA">https://www.google.com.gh/url?sa=t&amp;source=web&amp;rct=j&amp;url=https://www.mathsisfun.com/convert-fractions-percents.html&amp;ved=0ahUKEwif_57e5ezRAhXMhQKHyaTDfYQFggaMAE&amp;usg=AFQjCN G_xVHN-XUXImGXxE-OiQkMozL7bA</a> |
| e. Changing percentages to decimals                         | <ol style="list-style-type: none"><li>1. Write the given percentage and divide it by 100.</li><li>2. Simplify</li><li>3. You may use a calculator, but it is important for your ward to know how to use both strategies.</li></ol>   | NIM 6 - page 96   |
| f. Changing decimals into percentages                       | <ol style="list-style-type: none"><li>1. Multiply the decimal by 100.</li><li>2. Attach the percentage symbol (%) to the answer</li><li>3. You may use a calculator but it is important for your ward to know how multiply a decimal by 100 and know the effect (that the digits move two steps to the left)</li></ol> | NIM 6-page 96.  |
| g. Relationship between fractions, decimals and percentages | <ol style="list-style-type: none"><li>1. Convert a set of fractions to their decimals and percentages equivalents</li><li>2. You may use a calculator, but remember your ward must know</li></ol>  | NIM 6- page 96, Q.4   |

|   |  |                                   |
|---|--|-----------------------------------|
|   | how change a fraction to decimal and to percentage using the strategies described above.   |                                   |
| h. Ordering fractions, decimals and percentages                     | 1. Change all into fractions and compare<br>OR<br>2. Change all into percentages and compare<br>OR<br>3. Change all to decimals and compare  | NIM 6 - page 96<br>OIPM 6-page 42 |
| i. Finding fraction of an amount/quantity                           | 1. Multiply the fraction and the amount<br>2. Before this, express the amount/quantity as a fraction e.g. $\frac{2}{4} \times 200$ is the same as $\frac{2}{4} \times \frac{200}{1}$   | NIM 6-page 97                     |
| Solving real life problem using fractions, decimals and percentages | <p>A. Working with discounts and taxes</p> <p>Steps:</p> <ol style="list-style-type: none"> <li>1. Write the percentage discount as a fraction.</li> <li>2. Multiply it by the amount</li> <li>3. Subtract the result from the original selling price/amount.</li> <li>4. Write your final answer in a sentence form.</li> </ol> <p>B. Ratio and direct proportion</p> <p>Example: In a sports club there are 4 girls to every 3 boys. If there are 42 children in the club, how many are boys?</p> <p>Solution:</p> <p>Ratio = 4:3</p> <p>Proportion = <math>\frac{4}{7} + \frac{3}{7} = \frac{7}{7}</math> (1 whole = 42)</p> <p>Now, to find the number of boys, multiply the proportions for boys by the total number of children = <math>\frac{3}{7} \times 42 = 18</math></p> <p>Therefore, there are 18 boys in the club.</p> | OIPM 6-page 43<br>NIM 6-page 99   |