

## P5 MATHEMATICS SCHEME OF WORK TERM ONE

| Wk | Pd | The me       | T p                         | S p           | Content  | L/SK L                                 | Competences  |  | Activity   | Methods / tech   | Learnin g material s   | RS  | R m |
|----|----|--------------|-----------------------------|---------------|--|--|--|--|--|--|--|---|-----|
|    |    |              |                             |               |  |  | Subject  | Language   |  |  |  |   |     |
|    |    |              |                             |               |  |  |  |  |  |  |  |   |     |
| 2  | 2  | SET CONCEPTS | EQUAL SETS, EQUIVALENT SETS | Types of sets | <p><b><u>TYPES OF SETS</u></b></p> <p>i) Definition of a set.</p> <p>ii) Types of sets</p> <p><b><u>EQUAL SETS</u></b></p> <p>i) Definition of an equal set.</p> <p>ii) Symbol of an equal set</p> <p>iii) Examples of equal sets</p> <p><b><u>EQUIVALENT SETS</u></b></p> <p>i) Definition of equivalent sets</p> <p>ii) Symbol of equivalent sets</p> <p>iii) Examples of equivalent sets.</p> | Critical thinking and problem solving. | <p><b>Learners should be able to:</b></p> <p>i) Define a set.</p> <p>ii) Name different types of sets.</p> <p>iii) Define an equal set</p> <p>iv) Give the symbol of equal sets</p> <p>v) Give examples of equal sets.</p> <p><b>Learners should be able to:</b></p> <p>i) Define an equivalent set</p> <p>ii) Write the symbol of an equivalent set</p> <p>iii) Form examples of equivalent sets through own experiences.</p> | <p>Leaners should:</p> <p>1) Read vocabularies with correct intonation and pronunciation.</p> <p>2) Spell the vocabularies correctly</p> | <p>Naming types of sets.</p> <p>Drawing set symbols</p> <p>Shading sets</p> <p>Applying symbols in given sets</p> <p>Reading applied symbols</p> <p>Doing some exercises</p> | <p>1) Class discussion and Demonstration.</p> <p>Explanation</p> <p>Discovery Question and answer.</p> | <p>Pens, sets, pencil. &amp; Other real objects. - charts showing types of sets.</p> | <p>New Mk Primary mathematics 2000, Page 1</p> <p>New Mk Primary mathematics 2000, Page 1 - 2</p> |     |

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| 2 |  | 2 | SET CONCEPTS | Types of sets | <p><b>NON EQUIVALENT SETS</b></p> <p>i) Definition of non-equivalent sets.</p> <p>ii) Symbol of non-equivalent sets</p> <p>iii) Examples of non-equivalent sets.</p> <p><b>EMPTY SETS</b></p> <p>i) Definition of an empty set.</p> <p>ii) Symbol of non-equivalent set</p> <p>iii) Examples of an empty set.</p> <p><b>INTERSECTION SETS</b></p> <p>i) Definition of intersection of sets.</p> <p>ii) The symbol of intersection of sets.</p> <p>iii) Finding number of elements in intersection.</p> <p>iv) Shading and representing intersection on a Venn diagram.</p> <p>v) Identifying members of intersection.</p> <p>vi) Deriving members of intersection from a venn diagram.</p> | <p><b>Critical thinking and problem solving</b></p> | <p><b>Learners should be able to:</b></p> <p>Define a non-equivalent set.</p> <p>Write the symbol of a non-equivalent set</p> <p>Form non-equivalent sets</p> <p><b>Learners should be able to:</b></p> <p>i) Define an empty set.</p> <p>ii) Write and identify the symbols of an empty set.</p> <p>iii) Identify empty sets.</p> <p><b>Learners should be able to:</b></p> <p>i) Define intersection of sets</p> <p>ii) Identify and Draw the symbol of intersection of sets.</p> <p>iii) State the number of intersection of sets.</p> <p>iv) Shade and represent intersection on a venn diagram.</p> <p>v) Identify members of intersection.</p> <p>vi) Derive members of intersection from a venn diagram.</p> | <p>Leaners should:</p> <p>3) Read - vocabularies with correct intonation and pronunciation.</p> <p>4) Spell vocabularies correctly</p> | <p>Drawing set symbols</p> <p>Shading sets</p> <p>Applying symbols in given sets</p> <p>Reading applied symbols</p> <p>Doing some exercises</p> | <p>Class discussion. Demonstration. Explanation Discovery</p> | <p>Pens, sets, pencil. &amp; Other real objects. chart showing types of sets.</p> | <p>New Mk Primary mathematics 2000, Page 2</p> <p>New Mk Primary mathematics 2000, Page 3</p> <p>New Mk Primary mathematics 2000, Page 4 - 7</p> |  |
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| 2 | 2 | SET CONCEPTS CEPTS | Union of sets | <p><b>UNION OF SETS</b></p> <p>i) Definition of union of sets.<br/> ii) Symbol for union of sets.<br/> iii) Finding union of sets.<br/> iv) Number of elements in the union of sets.<br/> v) Representing union sets on a Venn diagram.</p> <p><b>THE DIFFERENCE OF SETS</b></p> <p>i) Definition of difference of sets.<br/> ii) How difference of sets is represented symbolically.<br/> iii) Diagrammatic representation of difference of sets.<br/> iv) Listing members of the difference of sets.<br/> v) Number of members in the difference of sets.</p> | Critical thinking and putting information on the Venn diagram | <p><b>Learners should be able to:</b></p> <p>i) Define union of sets.<br/> ii) Write the symbol for union of sets.<br/> iii) Form union of sets from given sets.<br/> iv) Write the number of elements in the union of sets.<br/> v) Represent union of sets on a Venn diagram.<br/> vi) Derive members of union of sets from a Venn diagram.</p> <p><b>Learners should be able to:</b></p> <p>i) Define difference of sets.<br/> ii) Represent difference of sets symbolically.<br/> iii) Represent difference of sets diagrammatically.<br/> vi) Identify and list members of the difference of sets.<br/> iv) Write number of members in the difference of sets.</p> | <p>Leaners should:</p> <p>3) Read vocabularies with correct intonation and pronunciation.<br/> 4) Spell vocabularies correctly.</p> | <p>Drawing set symbols<br/> Shading sets<br/> Applying symbols in given sets<br/> Reading applied symbols<br/> Doing some exercises</p> | <p>Class discussion.<br/> Demonstration.<br/> Explanation</p> | <p>Pens, sets, pencil. &amp; Other real objects. chart showing types of sets.</p> | <p>New Mk Primary mathematics 2000, Page 8 – 12</p> <p>New Mk Primary mathematics 2000, Page 13 - 14</p> |  |
|   | 2 |                    | Types of sets |   |   | 3   |   |   |   |   |  |  |

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| 3 | 2 | SET CONCEPTS | Set elements | <p><b><u>SUB SETS OF A SET</u></b></p> <p>i) Description of a sub - set.</p> <p>ii) The symbol for a sub set.</p> <p>iii) Listing sub sets of a given set.</p> <p>iv) Finding number of sub sets in a given set.</p> <p>v) Representing subsets on a Venn diagram</p> <p>vi) Using the formula</p> | Critical thinking and putting information on the Venn diagram | <p><b>Learners sh'd be able to:</b></p> <p>i) Shade the required set on a Venn diagram.</p> <p>ii) Identify elements from a given set on the Venn diagram.</p> <p>iii) State number of elements in a given set.</p> <p><b>Learners sh'd be able to:</b></p> <p>i) Define a sub set.</p> <p>ii) Write the symbol for a sub set.</p> <p>iii) List sub sets of a given set.</p> <p>iv) State number of sub sets in a given set.</p> <p>v) Represent sub sets on a Venn diagram.</p> | Learners should:<br>3) Read vocabularies with correct intonation and pronunciation.<br>4) Spell vocabularies correctly. | Drawing set symbols<br>Shading sets<br>Applying symbols in given sets<br>Reading applied symbols<br>Doing some exercises<br>Carrying out some demonstrations by tossing the coins and the dice. | Class discussion<br>Demonstration.<br>Explanation | Pens, sets, pencil. & Other real objects. chart showing Venn diagrams with illustrations of elements in a set and subsets | New Mk Primary mathematics 2000, Page 14 – 16 |  |
|   | 2 |              |              | <p><b><u>PROBABILITY</u></b></p> <p>i) Definition of probability.</p> <p>ii) Formula to find probability.</p> <p>iii) Probability using a coin.</p> <p>iv) Probability using a Dice.</p>   |   | <p>Define probability.</p> <p>i) State the formula used to find probability.</p> <p>ii) Solve probability involving a coin and a dice by using the formula.</p>  |   |   |   |   |   |  |
|   | 2 |              |              |  |   |  |   |   |   | Coin and a dice.  | New Mk Primary mathematics 2000, Page 18 - 20 |  |

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| 3 |   | THE<br>NUMERATION<br>SYSTEM | Place values | Place values of whole numbers | <p><b><u>THE NUMERATION SYSTEM</u></b></p> <p><b><u>Introduction</u></b></p> <p>i) Meaning of a numeration system</p> <p>ii) The numeric symbols. E.g. 0, 1, 2, 3...</p> <p>iii) Formation of numerals from digits. The largest and smallest.</p> <p>iv) The difference between the smallest and largest numbers.</p> <p><b><u>PLACE VALUES OF WHOLE NUMBERS</u></b></p> <p>i) Place values of each digit in a given number of up to hundreds of thousands.</p> <p>ii) Place values of underlined digits in a given number.</p> <p><b><u>VALUES OF WHOLE NUMBERS</u></b></p> <p>i) Finding values of each digit in a given number.</p> <p>ii) Finding values of underlined digits in a given number.</p> | Critical thinking and problem solving | <p><b>Learners sh'd be able to:</b></p> <p>i) State the meaning of Numeration system.</p> <p>ii) Give examples of numeric symbols.</p> <p>iii) Use given digits to form larger and smaller numbers</p> <p>iv) Work out the difference between the smallest and largest numbers formed.</p> <p><b>Learners sh'd be able to:</b></p> <p>i) State place values of each digit in a given number of up to hundreds of thousands.</p> <p>ii) Identify place values of underlined digits in a given number.</p> <p><b>Learners sh'd be able to:</b></p> <p>i) Work out values of each digit in a given number.</p> <p>ii) Work out values of underlined digits in a given number.</p> | <p>Leaners should:</p> <p>3) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly.</p> | <p>Class discussion in lesson , answering oral questions Doing an exercise</p> <p>Learners' participation in lesson as guided by the teacher. Doing an exercise</p> | <p>Chalkboard illustration Explanation Oral questioning and answer. Mental work Discussion.</p> | <p>- Chalk board illustration - chart showing place values.</p> | <p>New Mk Primary mathematics 2000, Page 24 - 25</p> <p>New Mk Primary mathematics 2000, Page 26</p> <p>New Mk Primary mathematics 2000, Page 27</p> |  |
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| 4 | 2 | THE<br><br>NUMERATION<br><br>SYSTEM | Writing figures in words | Writing figures in words | <p><b><u>WRITING FIGURES IN WORDS</u></b></p> <p>i) Use of the place value table to write figures up to hundreds of thousands in words.</p> <p><b><u>WRITING NUMBER WORDS IN FIGURES</u></b></p> <p>i) Use of the place value table to write number word up to hundreds of thousands in figures.</p> <p><b><u>COMPARING NUMBERS</u></b></p> <p>i) Arranging up to six digit numbers from the smallest to the highest.</p> <p>ii) Arranging up to six digit numbers from the highest to the smallest.</p> | Critical thinking and problem solving | <p><b>Learners should be able to:</b></p> <p>i) Use the place value table to write figures of up to hundreds of thousands in words.</p> <p><b>Learners should be able to:</b></p> <p>i) Use the place value table to write number word up to hundreds of thousands in figures.</p> <p><b>Learners should be able to:</b></p> <p>i) Arrange up to six digit numbers from the smallest to the highest.</p> <p>ii) Arrange upto six digit numbers from the highest to the smallest.</p> | <p>Leaners should:</p> <p>4) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly.</p> | <p>. Learners' participation in lesson as guided by the teacher<br/>Doing an exercise</p> <p>Learners 'participation in lesson as guided by the teacher.<br/>Doing an exercise</p> <p>Learner s participation in lesson as guided by the teacher.<br/>Doing an exercise</p> | <p>Chalkboard illustration .<br/>Explanation<br/>Oral questioning and answer.<br/>Mental work<br/>Discussion.</p> | <p>Chart showing Place values</p> <p>Chart showing Place values</p> <p>Chalkboard illustration .</p> | <p>New Mk Primary mathematics 2000, Page 28</p> <p>New Mk Primary mathematics 2000, Page 29</p> <p>New Mk Primary mathematics 2000, Page 29</p> |  |
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| 4 | 2 | THE<br><br>NUMERATION<br><br>SYSTEM | Expanded form of whole numbers | Expanding whole numbers   | <p><b><u>EXPANDING WHOLE NUMBERS USING VALUES</u></b></p> <p>i) Revision on values of digits in a given number.</p> <p>ii) Expanding numbers using values</p>                 | Critical thinking and problem solving | <p><b>Learners should be able to:</b></p> <p>i) Work out the values of digits in a given number.</p> <p>ii) Expand numbers with the help of values</p> | <p>Leaners should:</p> <p>5) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly.</p> | <p>Learners' participation in lesson as guided by the teacher. Doing an exercise</p> <p>Learners participation in lesson as guided by the teacher. Doing an exercise</p> | <p>Chalkboard illustration .</p> <p>Explanation Oral questioning and answer. Mental work Discussion. Learners' participation in lesson as guided by the teacher. Doing an exercise</p> | <p>Chart showing Place values Chalkboard illustration .</p> | <p>New Mk Primary mathematics 2000, Page 30</p> <p>New Mk Primary mathematics 2000, Page 31</p> |
|   | 2 |                                     |                                | <p><b><u>EXPANDING WHOLE NUMBERS AS MULTIPLES OF TEN</u></b></p> <p>i) Revision of values of digits in a given number in multiples of ten.</p> <p>ii) Expanding whole numbers using multiples of ten.</p> | <p><b>Learners should be able to:</b></p> <p>i) Solve the values of digits in a given number in multiples of ten.</p> <p>ii) Expand whole numbers using multiples of ten.</p> |                                       |  |  |  |  |   |   |

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| 4 | 2 | THE<br><br>NUMERATION<br><br>SYSTEM | Expanded form of whole numbers | Expanded form of whole numbers | <u><b>EXPANDING NUMBERS USING POWERS/ EXPONENTS</b></u><br>i) Supplying powers to digits in a given number to aid expansion.<br>ii) Expanding numbers using powers.                | Critical thinking and problem solving | <b>Learners sh'd be able to:</b><br>i) Supply powers to digits in a given number to aid expansion.<br>ii) Expanding numbers using powers.<br><br><b>Learners should be able to:</b><br>i) Derive numbers that were expanded using values.<br>ii) Derive numbers that were expanded using powers.<br>iii) Derive numbers that were expanded using multiples of ten. | Leaners should:<br>6) Read vocabularies with correct intonation and pronunciation.<br><br>Spell vocabularies correctly. | Learners' participation in lesson as guided by the teacher.<br><br>Learner s participation in lesson as guided by the teacher. Doing an exercise.<br><br>Learner s participation in lesson as guided by the teacher. Doing an exercise. | Chalkboard illustration .<br>Explanation Oral questioning and answer. Mental work Discussion. | Chalkboard illustration . |  |
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| 5 | 2 |                                     |                                |                                | <u><b>FINDING EXPANDED NUMBERS</b></u><br>i) Numbers expanded using values.<br>ii) Numbers expanded using powers.<br>iii) Numbers expanded using multiples of ten.                 |                                       | <b>Learners should be able to:</b><br>i) State the place values of digits in decimal numbers.<br>ii) State the place values of underlined digits in decimal numbers.   |   |   |   |                           |  |
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|   | 2 |                                     |                                |                                | <u><b>PLACE VALUES OF DECIMALS</b></u><br>i) Finding the place values of digits in decimal numbers.<br>ii) Finding the place values of underlined digits in given decimal numbers. |                                       |  |   |   |   |                           |  |



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| 5 | 2 | THE<br>NUMERATION<br>SYSTEM | Decimal numbers | Values of decimal numbers | Critical thinking and problem solving | <p><b><u>VALUES OF DIGITS IN DECIMAL</u></b></p> <p>i) Work out the values of digits in decimal numbers.</p> <p>ii) Work out the values of underlined digits in decimal numbers.</p> | <p><b>Learners should be able to:</b></p> <p>i) Work out the values of digits in decimal numbers.</p> <p>ii) Work out the values of underlined digits in given decimal numbers.</p> | <p>Leaners should:</p> <p>7) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly.</p> | <p>Identifying place values of each digit. Doing an exercise.</p> | <p>Chalkboard illustration .</p> <p>Explanation Oral questioning and answer. Mental work Discussion .</p> | <p>Chart showing Place values including Decimal numbers Chalkboard illustration .</p> | <p>New Mk Primary mathematics 2000, Page 34 – 35</p> <p>New Mk Primary mathematics 2000, Page 35</p> <p>New Mk Primary mathematics 2000, Page 35 - 36</p> |  |
|   | 2 |                             |                 |                           |                                       | <p><b><u>WRITING DECIMAL NUMBERS IN WORDS</u></b></p> <p>i) Place values of digits in decimal numbers.</p> <p>ii) Writing decimal numbers in words.</p>                              | <p><b>Learners should be able to:</b></p> <p>i) State the place values of digits in decimal numbers.</p> <p>ii) Write decimal numbers in words up to hundredth correctly.</p>       |  |   |   |   |   |  |
|   | 2 |                             |                 |                           |                                       | <p><b><u>WRITING DECIMAL FRACTIONS IN FIGURES</u></b></p> <p>i) Writing decimal fractions in figures.</p> <p>ii) Writing up to hundredth decimal fractions in figures.</p>           | <p><b>Learners should be able to:</b></p> <p>i) Write decimal fractions in words to figures up to hundredth.</p>  |  |   |   |   |   |  |

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| 6 | 2 | THE<br>NUMERATION<br>SYSTEM | Decimal numbers | Expanding decimal numbers  | Critical thinking and problem solving | <p><b>Learners should be able to:</b></p> <p>i) Expand decimal numbers.</p> <p>ii) Expand wholes and decimal numbers.</p> <p><b>Learners should be able to:</b></p> <p>i) Write the Hindu Arabic Numerals and their equivalents</p> <p>ii) Express Hindu Arabic Numerals as Roman Numerals up to 500.</p> <p><b>Learners should be able to:</b></p> <p>i) Use the given rules when writing Roman Numerals correctly.</p> <p>ii) Convert Roman Numerals as Hindu Arabic Numerals.</p> <p>iii) Solve word problems in relation to Roman Numerals.</p> | <p>Leaners should:</p> <p>8) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly.</p> | <p>Identifying place values of each digit. Doing an exercise.</p> <p>Learner's participation in as guided by the teacher. Learners will do an exercise.</p> | <p>Chalkboard illustration .</p> <p>Explanation Oral questioning and answer. Mental work Discussion.</p> | <p>Chalkboard illustration .</p> | <p>New Mk Primary mathematics 2000, Page 36</p> |  |
|   | 2 |                             |                 | <p><b>EXPANDING DECIMAL NUMBERS</b></p> <p>i) Expanding decimal numbers.</p> <p>ii) Expanding wholes and decimal numbers.</p> <p><b>ROMANS AND HINDU ARABIC NUMERALS.</b></p> <p>i) Hindu Arabic Numerals and their equivalents</p> <p>ii) Expressing Hindu Arabic Numerals as Roman Numerals up to 500.</p> |                                       |   |  |   |  |                                  |   |  |
|   | 2 |                             | Roman numerals  | <p><b>EXPRESSING ROMAN NUMERALS AS HINDU ARABIC NUMERALS</b></p> <p>i) The rules used in writing Roman numerals.</p> <p>ii) Converting Roman Numerals to Hindu Arabic Numerals up to 500.</p> <p>iii) Solve word problems in relation to Roman Numerals.</p>   |                                       |   |  |   |  |                                  |   |  |

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| 6 | 2 | THE<br>NUMERATION<br>SYSTEM | Rounding off | Rounding off whole numbers | <p><b><u>ROUNDING OFF WHOLE NUMBERS</u></b></p> <p>i) Using a number line to aid in rounding off numbers.</p> <p>ii) Rounding off to the nearest tens.</p> <p>iii) Rounding off to the nearest Hundreds</p> <p>iv) Rounding off to the nearest thousands.</p> <p><b><u>ROUNDING OFF DECIMAL NUMBERS</u></b></p> <p>i) Rounding off numbers to the nearest tenth.</p> <p>ii) Rounding off numbers to the nearest Hundredth.</p> | Critical thinking and problem solving | <p><b>Learners should be able to;</b></p> <p>i) Use a number line to aid in rounding off numbers.</p> <p>ii) Round off numbers to the nearest tens.</p> <p>iii) Round off numbers to the nearest Hundreds.</p> <p>iv) Round off numbers to the nearest thousands.</p> <p><b>Learners should be able to:</b></p> <p>i) Round off numbers to the nearest tenth.</p> <p>ii) Round off numbers to the nearest hundredth.</p> | <p>Leaners should:</p> <p>9) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly.</p> | <p>Learners' participation in lesson as guided by the teacher. Responding to oral questions Learners will do an exercise.</p> <p>Learners' participation in lesson as guided by the teacher. Responding to oral questions</p> | <p>Chalkboard illustration .</p> <p>Explanation -Oral questioning and answer. Discussion.</p> <p>Chalkboard illustration .</p> | <p>New Mk Primary mathematics 2000, Page 39 – 44</p> <p>New Mk Primary mathematics 2000, Page 44</p> |  |
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| 7 | 2 | O<br>P<br>E<br>R<br>A<br>T<br>I<br>O<br>N<br><br>O<br>N<br><br>N<br>U<br>M<br>B<br>E<br>R<br>S | Addition of numbers    | Addition of whole numbers      | <b><u>ADDITION UPTO SIX DIGITS</u></b><br>i) Arranging digits vertically in respect of place values before adding.<br>ii) Adding numbers with up to six digits.<br>iii) Regrouping numbers by carrying when adding.<br>iv) Carrying out addition involved in word problem.       | Critical thinking and problem solving | <b>Learners should be able to:</b><br>i) Arrange digits vertically in respect of place values before adding.<br>ii) Add numbers with up to six digits.<br>iii) Regroup numbers by carrying when adding.<br>iv) Carry out addition involved in word problem.<br><br><b>Learners should be able to:</b><br>i) Arrange digits vertically in respect of place values before subtracting.<br>ii) Subtract numbers with up to six digits.<br>iii) Subtract numbers involved in word problem.<br>iv) Interpret the questions correctly. | Leaners should:<br>10) Read vocabularies with correct intonation and pronunciation.<br><br>Spell vocabularies correctly. | Chalkboard illustration. Explanation Oral questioning and answer. Mental work Discussion. | Learners' participation in lesson as guided by the teacher. Learners will do an exercise.<br><br><br>Learners' participation in lesson as guided by the teacher. Learners will do an exercise. | Chalkboard illustration . | New Mk Primary mathematics 2000, Page 47 – 49 |  |
|   | 2 |  | Subtraction of numbers | Subtraction of natural numbers | <b><u>SUBTRACTION OF NATURAL NUMBERS</u></b><br>i) Arranging digits vertically in respect of place values before subtracting.<br>ii) Subtract numbers with up to six digits.<br>iii) Apply borrowing when subtracting.<br>iv) Carrying out subtraction involved in word problem. |                                       |  |  |   |  | Chalkboard illustration . | New Mk Primary mathematics 2000, Page 50 - 51 |  |

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| 7 | 2 | O<br>P<br>E<br>R<br>A<br>T<br>I<br>O<br>N<br><br>O<br>N<br><br>N<br>U<br>M<br>B<br>E<br>R<br>S | Multiplication | Multiplication of a two by two digit number   | <p><b><u>MULTIPLICATION BY A TWO DIGIT NATURAL NUMBER</u></b></p> <p>i) Arranging digits vertically in respect of place values before multiplying.</p> <p>ii) Multiplying two digit numbers.</p> <p>iii) Applying carrying when multiplying two digit numbers.</p> <p>iv) Carrying out multiplication involved in word problem.</p>                | Critical thinking and problem solving | <p><b>Learners should be able to;</b></p> <p>i) Arrange digits vertically in respect of place values before multiplying.</p> <p>ii) Multiply two digit numbers.</p> <p>iii) Carry when multiplying two digit numbers.</p> <p>iv) Solve numbers involving multiplication in word problem.</p> | Leaners should:<br>11) Read vocabularies with correct intonation and pronunciation.       | Chalkboard illustration. Explanation Oral questioning and answer. Discussion. | Learners' participation in lesson as guided by the teacher. Learners will do an exercise. | Chalkboard illustration . | New Mk Primary mathematics 2000, Page 52 – 56 |
|   | 2 |  |                | <p><b><u>DIVISION OF NUMBERS.</u></b></p> <p>i) Divisibility test.</p> <p>ii) Comparing multiplication with division.</p> <p>iii) Dividing three digit numbers with and without remainders.</p> <p>iv) Dividing numbers by multiples of 10.</p> | <p><b>Learners should be able to:</b></p> <p>i) Apply divisibility test to easily divide numbers.</p> <p>v) Compare multiplication with division.</p> <p>vi) Divide numbers by multiples of 10 with remainder.</p> <p>v) Divide three digit numbers with and without remainders.</p> <p>vi) Solve numbers involving division in word problems.</p> |                                       | Spell vocabularies correctly.  | Learners' participation in lesson as guided by the teacher. Learners will do an exercise. |   | Chalkboard illustration .   |                           | New Mk Primary mathematics 2000, Page 57 - 59 |

|   |   |   |  |  |  |   |   |   |   |   |   |  |
|---|---|---|--|--|--|---|---|---|---|---|---|--|
| 7 | 2 | O<br>P<br>E<br>R<br>A<br>T<br>I<br>O<br>N | C<br>o<br>m<br>b<br>i<br>n<br>e<br>d<br>o<br>p<br>e<br>r<br>a<br>t<br>i<br>o<br>n<br>s | C<br>o<br>m<br>b<br>i<br>n<br>e<br>d<br>o<br>p<br>e<br>r<br>a<br>t<br>i<br>o<br>n<br>s | <b><u>COMBINED OPERATION</u></b><br>i) Solving mixed operation numbers.<br>ii) Use of BODMAS .   | C<br>r<br>i<br>t<br>i<br>c<br>a<br>l<br>t<br>h<br>i<br>n<br>k<br>i<br>n<br>g<br>a<br>n<br>d<br>p<br>r<br>o<br>b<br>l<br>e<br>m<br>s<br>o<br>l<br>v<br>i<br>n<br>g | <b>Learners should be able to:</b><br>i) Solve numbers with mixed operation.<br>ii) State what each letter for BODMAS stands for.<br>iii) Use BODMAS when solving numbers with mixed operation.   | Learners should:<br>12) Read vocabularies with correct intonation and pronunciation.<br><br>Spell vocabularies correctly. | Chalkboard illustration.<br>Explanation<br>Oral questioning and answer.<br>Mental work<br>Discussion. | Responding to oral questions<br>Learners will do an exercise. | Chart showing BODMAS and what it means.<br>Chalkboard illustration .<br><br>Chalkboard illustration . | New Mk Primary mathematics 2000, Page 63 |
|   |   |   |  |  | <b><u>AVERAGE (MEAN) OF NUMBERS</u></b><br>i) Formula for finding average<br>ii) Finding average (mean) of numbers by adding the items given and divide them by the number of items. |   | <b>Learners should be able to:</b><br>i) State the Formula for finding average.<br>ii) Work out the average (mean) of numbers by adding the items given and divide them by the number of items.<br>iii) Apply the idea of averages in solving daily life situations |   |   |   |   |  |
|   |   |   |  |  | <b><u>COMPARING MEANAND TOTAL</u></b><br>i) Find the total when number and the average are given.  |   | <b>Work out the total when number and the average are given.</b>  |   |   |   |   |  |
| 8 | 2 | N<br>U<br>M<br>B<br>E<br>R<br>S           | M<br>e<br>a<br>n   | F<br>i<br>n<br>d<br>i<br>n<br>g<br>m<br>e<br>a<br>n                                    |  |   |   |   |   |   |   |  |
|   |   |   |  |  |  |   |   |   |   |   |   |  |
|   |   |   |  |  |  |   |   |   |   |   |   |  |
| 2 | 2 |   |  |  |  |   |   |   |   |   |   |  |
|   |   |   |  |  |  |   |   |   |   |   |   |  |
|   |   |   |  |  |  |   |   |   |   |   |   |  |

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|---|---|--|-----------|---|---------------------------------------|--|---|--|--|--|---|--|
| 8 | 2 | O<br>P<br>E<br>R<br>A<br>T<br>I<br>O<br>N<br><br>O<br>N<br><br>N<br>U<br>M<br>B<br>E<br>R<br>S | Ba<br>ses | <p><b><u>SYMBOLS <math>&gt;</math>, <math>&lt;</math>, <math>\geq</math>, <math>\leq</math> AND <math>=</math></u></b></p> <p>i) The meaning of each symbol.</p> <p>ii) Applying each symbol in different mathematical phrases.</p> | Critical thinking and problem solving | <p><b>Learners should be able to:</b></p> <p>i) State the meaning of each symbol.</p> <p>iii) Apply each symbol in a given mathematical phrase.</p>  | Learners should:<br>13) Read vocabularies with correct intonation and pronunciation.<br><br>Spell vocabularies correctly. | Chalkboard illustration. Explanation Oral questioning and answer. Mental work Demonstration. Discussion. | Responding to oral questions Learners will do an exercise. | Chart of symbols with what they mean.      | New Mk Primary mathematics 2000, Page 66      |  |
|   | 2 |  |           | <p><b><u>BASE FIVE AND TEN</u></b></p> <p>i) Meaning of decimal system.</p> <p>ii) Meaning of non-decimal system.</p> <p>iii) Counting in base five.</p> <p>iv) The basic digits of base five.</p>                                  |                                       | <p><b>Learners should be able to:</b></p> <p>i) State the meaning of decimal system.</p> <p>ii) State the meaning of non-decimal system.</p> <p>iii) Count in base five.</p> <p>iv) Mention the basic digits of base five.</p> |   |  |  |  |   |  |
|   | 2 |  |           | <p><b><u>PLACE VALUE</u></b></p> <p>i) Place values of each digit in base five</p> <p>ii) Finding the values of each digit in base five numbers with up to three digits.</p>  |                                       | <p><b>Learners should be able to:</b></p> <p>i) Work out the place values of each digit in a base five number.</p> <p>iii) Work out the values of each digit in base five numbers with up to three digits.</p>                 |   |  |  | Chart showing place values of base numbers | New Mk Primary mathematics 2000, Page 68 – 69 | New Mk Primary mathematics 2000, Page 70 |

|   |   |  |  |  |                                       |  |  |  |  |   |   |   |                          |  |  |
|---|---|--|--|--|---------------------------------------|--|--|--|--|---|---|---|--------------------------|--|--|
| 9 | 2 |  |  |  | Critical thinking and problem solving | <p><b><u>WRITING BASE FIVE NUMBERS IN WORDS</u></b></p> <p>i) Converting base five numbers to words.</p> <p>ii) Reading digit in a base five.</p>  | Learners should be able to: <p>i) Convert base five numbers to words.</p> <p>ii) Reading each digit in a base five number separately so as to easily write in words.</p> | Learners should be able to: <p>i) State the place value of each digit in a base five number.</p> <p>ii) Expand in base five by applying multiplication and addition.</p> | Learners should be able to: <p>i) Expand in base five by using multiplication and addition.</p> <p>ii) Add the expanded expression to find base ten.</p> | Learners should: <p>14) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly.</p> | Chalkboard illustration. Explanation Oral questioning and answer. Mental work Discussion. | Learners' participation in lesson as guided by the teacher. Responding to oral questions Learners will do an exercise | Chalkboard illustration. | New Mk Primary mathematics 2000, Page 70 |  |
|   | 2 |  | Bases                                    |  |                                       | <p><b><u>EXPANDING IN BASE FIVE</u></b></p> <p>i) The place values of each digit in base five number.</p> <p>ii) Expanding in base five</p>  |  |  |  |   |   |   |                          |  |  |
|   | 2 |  | Conversion of numbers to different bases |  |                                       | <p><b><u>CHANGING BASE FIVE TO BASE TEN</u></b></p> <p>i) Application of expanding in bases five by multiplication and addition.</p> <p>ii) Adding the expanded expression to find base ten.</p> |  |  |  |   |   |   |                          |  |  |



|   |   |  |           |  |   |  |  |   |   |   |                           |  |
|---|---|--|-----------|--|---|--|--|---|---|---|---------------------------|--|
| 9 | 2 | O<br>P<br>E<br>R<br>A<br>T<br>I<br>O<br>N<br><br>O<br>N<br><br>N<br>U<br>M<br>B<br>E<br>R<br>S | Ba<br>ses | Co<br>nve<br>rsio<br>n of<br>nu<br>mb<br>ers<br>to<br>diff<br>ere<br>nt<br>bas<br>es | <p><b><u>CHANGING BASE TEN TO BASE FIVE</u></b></p> <p>i) Using division to change base ten to base five.</p> <p>ii) Finding the remainder after each consecutive division carried out.</p> <p>iii) Reading the answer from the remainder column.</p> | Critical<br>thinkin<br>g and<br>proble<br>m<br>solving | <p><b>Learners should be able to:</b></p> <p>i) Use division to change base ten to base five.</p> <p>ii) Obtain the remainder after each consecutive division carried out.</p> <p>iii) Read the answer from the remainder column from down up wards.</p>           | <p>Leaners should:</p> <p>15) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly.</p> | Chalkboard illustration. Explanation Oral questioning and answer. Mental work Discussion. | Learners' participation in lesson as guided by the teacher. Learners will do an exercise                              | Chalkboard illustration . | New Mk Primary mathematics 2000, Page 72 |
|   | 2 |  |           | Ad<br>diti<br>on<br>in<br>bas<br>es  | <p><b><u>ADDITION IN BASE FIVE</u></b></p> <p>i) Digits applied in base five.</p> <p>ii) Use of division to get the remainder.</p> <p>iii) Regrouping the whole number and the remainders to obtain the answer.</p>                                   |  | <p><b>Learners should be able to:</b></p> <p>i) Name the operational digits of base five when adding.</p> <p>ii) Use division to get the remainder.</p> <p>iii) Regroup the whole number and the remainders to obtain the answer.</p> <p>iv) Add in base five.</p> |   |   | Learners' participation in lesson as guided by the teacher. Responding to oral questions Learners will do an exercise | Chalkboard illustration . | New Mk Primary mathematics 2000, Page 73 |

|    |   |                   |               |  |                                       |  |   |   |   |  |  |
|----|---|-------------------|---------------|--|---------------------------------------|--|---|---|---|--|--|
| 10 | 2 | OPERATION NUMBERS | Bases         | <p><b>MULTIPLICATION IN BASE FIVE</b></p> <p>i) Carry out simple multiplication.</p> <p>ii) Maintaining the operational digits in base five by division and a remainder obtained.</p> <p>iii) Multiplying numbers in base five.</p>  | Critical thinking and problem solving | <p><b>Learners should be able to:</b></p> <p>i) Carry out simple multiplication.</p> <p>ii) Maintain the operational digits in base five by division and a remainder obtained.</p> <p>iii) Multiply numbers in base five.</p>                                    | <p>Leaners should:</p> <p>16) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly.</p> | <p>Chalkboard illustration. Explanation Oral questioning and answer. Rote Discussion.</p> | <p>Learners answer oral questions in time of discussion</p> <p>Chalk board illustration .</p> | <p>Chalkboard illustration .</p>                             | <p>New Mk Primary mathematics 2000, Page74</p> |
|    | 2 |                   | Finite system | <p><b>CLOCK ARITHMETIC</b></p> <p><b>EXPRESSING NUMBERS IN FINITE 5 AND 7.</b></p> <p>i) Explanation of clock arithmetic.</p> <p>ii) Explanation of finite system.</p> <p>iii) Application of division in the finite system.</p> <p>iv) Finding the remainder after division as the answer</p> |                                       | <p><b>Learners should be able to:</b></p> <p>i) Explain clock arithmetic.</p> <p>ii) Explain finite system.</p> <p>iii) Divide in the finite system.</p> <p>iv) Read the remainder after division as the answer</p> <p>v) Express numbers in finite 5 and 7.</p> |   |   | <p>Chalkboard illustration .</p>  | <p>New Mk Primary mathematics 2000, Page 204 and 208 - 9</p> |  |

|    |   |  |               |                  |   |                                       |   |   |   |  |                                  |  |  |
|----|---|--|---------------|------------------|---|---------------------------------------|---|---|---|--|----------------------------------|--|--|
| 10 | 2 | O<br>P<br>E<br>R<br>A<br>T<br>I<br>O<br>N<br><br>O<br>N<br><br>N<br>U<br>M<br>B<br>E<br>R<br>S | Finite system | Clock arithmetic | <p><b><u>ADDITION USING A DIAL</u></b></p> <p>i) Drawing a dial.</p> <p>ii) Identifying the digits applied in base 5 and 7 respectively.</p> <p>iii) Inserting the digits of a particular finite in a dial.</p> <p>iv) Clockwise movement for addition in positive integers.</p> <p>v) Applying addition of numbers in the finite system.</p> | Critical thinking and problem solving | <p><b>Learners should be able to:</b></p> <p>i) Draw a dial.</p> <p>ii) Identify the digits applied in base 5 and 7 respectively.</p> <p>iii) Insert the digits of a particular finite in a dial.</p> <p>iv) Demonstrate clockwise movement on a dial for addition in positive integers.</p> <p>v) Apply addition on a dial for numbers in the finite system.</p> | <p>Leaners should:</p> <p>17) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly.</p> | <p>Chalkboard illustration. Explanation Oral questioning and answer. Mental work Demonstration. Discussion.</p> | <p>Drawing dials Demonstration of mov't of the dial clock and anticlock wise</p>                                       | <p>Chalkboard illustration .</p> | <p>New Mk Primary mathematics 2000, Page 211</p> |  |
|    | 2 |  |               |                  | <p><b><u>ADDITION IN FINITE WITHOUT USING A DIAL.</u></b></p> <p>i) Carrying out simple addition in finite system.</p> <p>ii) Applying division to get the remainder considered to be the answer.</p>   |                                       | <p><b>Learners should be able to:</b></p> <p>i) Carry out simple addition in finite system.</p> <p>ii) Apply division to get the remainder considered to be the answer</p>  |   |   | <p>Learners' participation in oral questions and answer. Responding to oral questions Learners will do an exercise</p> | <p>Chalkboard illustration .</p> | <p>New Mk Primary mathematics 2000, Page 212</p> |  |

|    |   |                                      |          |                                     |                                       |   |  |   |  |  |   |   |
|----|---|--------------------------------------|----------|-------------------------------------|---------------------------------------|---|--|---|--|--|---|---|
| 10 | 2 | I<br>N<br>T<br>E<br>G<br>E<br>R<br>S | Integers | Arranging integers on a number line | Critical thinking and problem solving | <p><b>INTEGERS</b></p> <p>i) Definition of integers.</p> <p>ii) Description of positive integers.</p> <p>iii) Representing positive integers on a number line.</p> <p>iv) Description of negative integers.</p> <p>v) Writing expressions that represent negative integers.</p>   | <p><b>Learners should be able to:</b></p> <p>i) Define integers.</p> <p>ii) Describe positive integers.</p> <p>iii) Represent positive integers on a number line.</p> <p>vi) Describe negative integers.</p> <p>iv) Give expressions that represent negative integers.</p>   | Leaners should:<br>18) Read vocabularies with correct intonation and pronunciation.<br><br>Spell vocabularies correctly | Chalkboard illustration. Explanation Oral questioning and answer. Rote Discussion. | Mental work Learners' participation in class discussion. | Chalkboard illustration . Chart showing parts of a number line. | New Mk Primary mathematics 2000, Page 95 – 96 |
|    | 2 |                                      |          |                                     |                                       | <p><b>THE NUMBER LINE AND ORDERING INTEGERS</b></p> <p>i) Integers on a number line.</p> <p>ii) Symbols used for the positive and negative integers respectively.</p> <p>iii) Drawing a number line.</p> <p>iv) Placing integers on a number line.</p> <p>v) Ordering integers using a number line.</p> <p>vi) Comparing the directions of integers on a number line.</p> | <p><b>Learners should be able to:</b></p> <p>i) Identify negative and positive integers.</p> <p>ii) Describe the Symbols used for the positive and negative integers.</p> <p>iii) Draw a number line.</p> <p>iv) Place integers on a number line.</p> <p>v) Order integers using a number line.</p> <p>vi) Compare the directions of integers on a number line</p> |   |  |  |   |   |

|    |   |                                      |          |                   |  |                                       |  |  |  |   |   |   |
|----|---|--------------------------------------|----------|-------------------|--|---------------------------------------|--|--|--|---|---|---|
| 11 | 2 | I<br>N<br>T<br>E<br>G<br>E<br>R<br>S | Integers | Ordering integers | <b><u>ORDERING INTEGERS USING SYMBOLS &lt;, &gt;, ≤, ≥</u></b><br>i) The meaning of each symbol.<br>ii) Ordering the integers using the symbols<br>iii) Using the number line to get the required set of integers.   | Critical thinking and problem solving | <b>Learners should be able to:</b><br>i) State The meaning of each symbol.<br>ii) Order the integers using the symbols<br>iii) Use a number line to get the required set of integers.  | Learners should:<br>19) Read vocabularies with correct intonation and pronunciation.<br><br>Spell vocabularies correctly | Chalkboard illustration. Explanation Oral questioning and answer. Mental work Demonstration. Discussion. | Mental work Learners' participation in class discussion. Drawing number lines | Chalkboard illustration . Chart showing parts of a number line. | New Mk Primary mathematics 2000, Page 99        |
|    | 2 |                                      |          |                   | <b><u>INVERSE OF INTEGERS AND ADDITIVE INVERSE</u></b><br>i) Definition of inverse.<br>ii) Matching inverses on a number line.<br>iii) Giving examples of inverses of given integers.<br>iv) Meaning of additive inverse.<br>v) The inverse property.<br>vi) Working out the additive inverses of integers on a number line. |                                       | <b>Learners should be able to:</b><br>i) Define an inverse.<br>ii) Match inverses on a number line.<br>iii) Give examples of inverses of given integers.<br>iv) State the meaning of additive inverse.<br>v) State the inverse property.<br>vi) Work out the additive inverses of integers on a number line. |  |  |   | Chalkboard illustration . Chart showing parts of a number line. | New Mk Primary mathematics 2000, Page 100 - 101 |

|    |   |                                      |          |  |                                       |   |  |  |  |  |   |  |
|----|---|--------------------------------------|----------|--|---------------------------------------|---|--|--|--|--|---|--|
| 11 | 2 | I<br>N<br>T<br>E<br>G<br>E<br>R<br>S | Integers | <p>addition of integers on a number line</p> <p><b><u>ADDITION OF INTEGERS USING A NUMBERLINE.</u></b></p> <p>i) Identifying positive and negative directions on the number line in respect of the given integers to be added.</p> <p>ii) Carrying out the actual addition on the number line.</p> <p>iii) Showing the answer on the number line using the dotted line.</p>          | Critical thinking and problem solving | <p><b>Learners should be able to:</b></p> <p>i) Identify positive and negative directions on the number line in respect of the given integers to be added.</p> <p>ii) Carry out the actual addition on the number line.</p> <p>iii) Show the answer on the number line using the dotted line.</p> | <p>Leaners should:</p> <p>20) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly</p> | <p>Chalkboard illustration. Explanation Oral questioning and answer. Mental work Discussion.</p> | <p>Mental work Learners' participation in class discussion. Drawing number lines Adding and subtracting integers on a number line.</p> | <p>Chalkboard illustration . Chart showing parts of a number line.</p> | New Mk Primary mathematics 2000, Page 102 - 104 |  |
|    | 2 |                                      |          | <p>subtraction of integers on a number line</p> <p><b><u>SUBTRACTION OF INTEGERS USING A NUMBERLINE.</u></b></p> <p>i) Identifying positive and negative directions on the number line in respect of the given integers to be added.</p> <p>ii) Carrying out the actual subtraction on the number line.</p> <p>iii) Showing the answer on the number line using the dotted line.</p> |                                       | <p><b>Learners should be able to:</b></p> <p>i) Identify positive and negative directions on the number line in respect of the given integers to be added.</p> <p>ii) Carry out the actual (-) tion on the number line.</p> <p>iii) Show the answer on the number line using the dotted line.</p> |  |  |  | <p>Chalkboard illustration . Chart showing parts of a number line.</p> | New Mk Primary mathematics 2000, Page 105 108   |  |

|    |   |                                      |          |   |                 |   |   |  |   |   |                         |  |  |
|----|---|--------------------------------------|----------|---|-----------------|---|---|--|---|---|-------------------------|--|--|
| 11 | 2 | I<br>N<br>T<br>E<br>G<br>E<br>R<br>S | Integers | Forming mathematical statements from a number line  | Problem solving | <p><b>FORMING MATHEMATICAL STATEMENTS FROM NUMBER LINES.</b></p> <p>i) Starting from zero when writing a mathematical statement.</p> <p>ii) Locating the answer from the number line.</p>   | <p><b>Learners should be able to:</b></p> <p>i) Identify where to start from when writing a mathematical statement from a number line.</p> <p>ii) Locate the answer from the number line.</p> <p>iii) Interpret and write statements on a number line</p> | <p>Leaners should:</p> <p>21) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly</p> | Chalkboard illustration. Explanation Oral questioning and answer. Mental work Discussion. | Mental work Learners' participation in class discussion. Drawing number lines Interpreting statements on a number line. | Chalkboard illustration | New Mk Primary mathematics 2000, Page109 – 110 |  |
|    | 2 |                                      |          | <p><b><u>ADDITION OF INTEGERS WITHOUT USING A NUMBER LINE.</u></b></p> <p>i) Some important points to note when adding integers.</p> <p>ii) Carrying out addition without using a number line.</p> <p>iii) Use of the additive inverse.</p> |                 | <p><b>Learners should be able to:</b></p> <p>i) State some important points to note when adding integers.</p> <p>ii) Carry out addition of integers without using a number line.</p> <p>iii) Easily use the additive inverse property when adding integers.</p> |   |  |   |   |                         |  |  |

|    |   |                                      |          |                         |  |                 |  |   |   |  |                         |   |  |
|----|---|--------------------------------------|----------|-------------------------|--|-----------------|--|---|---|--|-------------------------|---|--|
| 11 | 2 | I<br>N<br>T<br>E<br>G<br>E<br>R<br>S | Integers | Subtraction of integers | <p><b><u>SUBTRACTION OF INTEGERS WITHOUT USING A NUMBER LINE.</u></b></p> <p>i) Subtraction of integers without using a number line.</p> <p>ii) Making use of greater or less than to determine the answer.</p> <p>iii) Transforming [- ] into as positive.</p> <p>iv)</p> | Problem solving | <p><b>Learners should be able to:</b></p> <p>i) Subtract integers without using a number line.</p> <p>ii) Making use of greater or less than to determine the answer.</p> <p>v) Transforming [- ] into as positives or as to carry out subtraction easily.</p> | <p>Learners should:</p> <p>22) Read vocabularies with correct intonation and pronunciation.</p> <p>Spell vocabularies correctly</p> | Chalkboard illustration. Explanation Oral questioning and answer. Mental work Discussion. | Mental work Learners' participation in class discussion. | Chalkboard illustration | New Mk Primary mathematics 2000, Page 112 |  |
|    |   |                                      |          |                         |  |                 |  |   |   |  |                         |   |  |



|   |   |  |           |                  |  |                        |   |   |   |  |                           |  |  |                           |  |
|---|---|--|-----------|------------------|--|------------------------|---|---|---|--|---------------------------|--|--|---------------------------|--|
| 9 | 2 | O<br>P<br>E<br>R<br>A<br>T<br>I<br>O<br>N<br><br>O<br>N<br><br>N<br>U<br>M<br>B<br>E<br>R<br>S | Bas<br>es | Bas<br>e<br>five | <b><u>WRITING BASE FIVE<br/>NUMBERS IN WORDS</u></b><br>iii) Converting base five numbers to words.<br>iv) Reading digit in a base five.   | Proble<br>m<br>solving | <b>Learners should be able to:</b><br>iii) Convert base five numbers to words.<br>iv) Reading each digit in a base five number separately so as to easily write in words. | Leaners should:<br>23) Read vocabularies with correct intonation and pronunciation.<br><br>Spell vocabularies correctly | Chalkboard illustration.<br>Explanation<br>Oral questioning and answer.<br>Mental work<br>Discussion. | Learners' participation in lesson as guided by the teacher. Responding to oral questions<br>Learners will do an exercise | Chalkboard illustration . | New Mk Primary mathematics 2000, Page 70 |  |                           |  |
|   | 2 |  |           |                  | <b><u>EXPANDING IN BASE FIVE</u></b><br>iii) The place values of each digit in base five number.<br>iv) Expanding in base five   |                        | <b>Learners should be able to:</b><br>iii) State the place value of each digit in a base five number.<br>iv) Expand in base five by applying multiplication and addition. |   |   |  |                           |  | Learners participation in lesson as guided by the teacher. | Chalkboard illustration . | New Mk Primary mathematics 2000, Page 71 |
|   | 2 |  |           |                  | <b><u>CHANGING BASE FIVE TO BASE TEN</u></b><br>iii) Application of expanding in base five by multiplication and addition.<br>iv) Adding the expanded expression to find base ten. |                        | <b>Learners should be able to:</b><br>iii) Expand in base five by using multiplication and addition.<br>iv) Add the expanded expression to find base ten.                 |   |   |  |                           |  |  |                           |  |

## PRIMARY FIVE MTC SCHEME OF WORK TERM TWO

| WK | PD | THM     | TPC     | S/TP                             | L/SKL                                 | COMPETENCES   |   | CONTENT   | METH  | A) S/ACT              | L/AID   | REF                                      | RE |
|----|----|---------|---------|----------------------------------|---------------------------------------|---|---|---|---|-----------------------|---|--|----|
|    |    |         |         |                                  |                                       | SUBJECT   | LANGUAGE  |   |   |                       |   |  |    |
| 2  | 1  | ALGEBRA | ALGEBRA | COLLECTING LIKE TERMS            | Critical thinking and problem solving | <b>The learner</b> <ol style="list-style-type: none"> <li>Sorts and groups similar items.</li> <li>Uses an appropriate letter to represent the items.</li> <li>Collects like terms considering application of BODMAS.</li> <li>Collects like terms involved in word problems</li> </ol> | Read words correctly.<br><br>Writes BODMAS in full. | <u>COLLECTING LIKE TERMS</u><br><br><b>Example:</b><br>Write the following in short:<br>$1\text{pen} + 1\text{pen} + 1\text{pen} + 1\text{pen}$<br>Let each pen be $p$<br>$p + p + p + p$<br>$= 4p$<br><b><u>= 4 pens</u></b> | <ul style="list-style-type: none"> <li>• Demonstration</li> <li>• Discussion</li> </ul> | Collecting like terms | Chalkboard illustration, pens, pencils, rubbers, stones, books etc. | A NEW MK PRIMARY MTC BK 5 PAGE 267 – 268 |    |
|    | 2  | ALGEBRA | ALGEBRA | SIMPLIFYING ALGEBRAIC EXPRESSION | Critical thinking and problem solving | <b>The Learner:</b> <ol style="list-style-type: none"> <li>Writes an algebraic expression by either adding or subtracting</li> <li>Collects like terms and simplify where necessary.</li> </ol>   | Read words correctly.<br><br>Writes BODMAS in full. | <u>SIMPLIFYING ALGEBRAIC EXPRESSION</u><br><br><b>Example:</b><br>Write in short form:<br>$q + 7q + 4q$<br>$= 12q$  | <ul style="list-style-type: none"> <li>• Discussion</li> </ul>                          | Collecting like terms | Chalkboard illustration, pens, pencils, rubbers, stones, books etc. | A NEW MK PRIMARY MTC BK 5 PAGE 268 – 269 |    |



|   |   |         |         |                                      |   |   |  |  |   |   |  |                                    |  |
|---|---|---------|---------|--------------------------------------|---|---|--|--|---|---|--|------------------------------------|--|
| 3 | 1 | ALGEBRA | ALGEBRA | WORD PROBLEMS                        | Critical thinking and problem solving Appreciation. | <b>The learner:</b><br>1. Derives equations from given word problems.<br>2. Solves for the unknown.   | Collecting like terms.<br><br>Reading mathematical statements. | <b>WORD PROBLEMS</b><br><b>Example</b><br>What number when added to 5 gives 11<br>Let the number be x<br>$x + 5 = 11$<br>$x + 5 - 5 = 11 - 5$<br>$x = 11 - 5$<br>$x = 6$   | <ul style="list-style-type: none"> <li>Discovery</li> <li>Discussion</li> </ul> | i) Forming algebraic expressions.<br>ii) solving simple problems involving algebra. | Chalkboard illustration, pens, pencils, rubbers, etc | A NEW MK PRIMARY MTC BK 5 PAGE 273 |  |
|   | 2 | ALGEBRA | ALGEBRA | <u>SOLVING EQUATIONS BY ADDITION</u> | Critical thinking and problem solving               | <b>The learner:</b><br>1. Collects like terms correctly.<br>2. Uses the inverse operation to eliminate the unwanted number from either sides of an equation<br>3. Solves for the unknown. | Collecting like terms.<br><br>Reading mathematical statements. | <b><u>SOLVING EQUATIONS BY ADDITION</u></b><br><br><b>Example</b><br>Find the value of n: $n - 5 = 3$<br>$n - 5 = 3$<br>$n - 5 + 5 = 3 + 5$<br>$n = 3 + 5$<br>$n = 8$  | Class discussion  | solving simple problems involving algebra.  | Chalkboard illustration.                             | A NEW MK PRIMARY MTC BK 5 PAGE 274 |  |
|   | 3 | ALGEBRA | ALGEBRA | WORD PROBLEMS                        | Critical thinking and problem solving               | <b>The Learner:</b><br>1. Derives equations from given word problems.<br>2. Solves for the unknown.   | Collecting like terms.<br><br>Reading mathematical statements  | <b>WORD PROBLEMS</b><br><b>Example</b><br>A boy used 3 of his exercise books and remained with 4 books. How many books did he have first?<br>Let the number of books he had be x<br>$n - 3 = 4$<br>$n - 3 + 3 = 4 + 3$<br>$n = 4 + 3$<br>$n = 7$<br><b><u>He had 7 books at first.</u></b> | <ul style="list-style-type: none"> <li>Discovery</li> <li>Discussion</li> </ul> | i) Forming algebraic expressions.<br>ii) solving simple problems involving algebra. | Chalkboard illustration.                             | A NEW MK PRIMARY MTC BK 5 PAGE 275 |  |
















|   |   |          |           |                             |   |  |   |   |                  |   |                         |                                       |
|---|---|----------|-----------|-----------------------------|---|--|---|---|------------------|---|-------------------------|---------------------------------------|
| 7 | 1 | NUMERACY | FRACTIONS | MIXED FRACTIONS AS IMPROPER | Effective communication and problem solving | <b>The Learner:</b><br>Expresses mixed fraction as improper fraction.  | i) Expressing improper fractions as mixed fractions<br>ii) Expressing mixed fractions as improper fractions | <b><u>MIXED FRACTIONS AS IMPROPER</u></b><br><b>Example</b><br>Express $4\frac{2}{3}$ as an improper fraction<br>$4\frac{2}{3} = \frac{W \times D + N}{D}$<br>$= \frac{4 \times 3 + 2}{3}$<br>$= \frac{12 + 2}{3}$<br>$4\frac{2}{3} = \frac{14}{3}$   | Class discussion | Expressing mixed fractions to improper fractions. | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5<br>PAGE 116 |
|   | 2 | NUMERACY | FRACTIONS | EQUIVALENT FRACTION         | Effective communication and problem solving | <b>Learner:</b><br>1. Represents equivalent fractions diagrammatically.<br>2. Works out equivalent fractions by calculation.   | Finding equivalent fractions  | <b><u>EQUIVALENT FRACTION</u></b><br><b>Diagrammatic representation of equivalent fractions</b><br><br>$\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{1}{2}$<br><b><u>Equivalent fractions by calculation</u></b><br><b>Example</b><br>Write four fractions equivalent to $\frac{1}{2}$<br>$\frac{1}{2} = \frac{1 \times 2}{2 \times 2}, \frac{1 \times 3}{2 \times 3}, \frac{1 \times 4}{2 \times 4}, \frac{1 \times 5}{2 \times 5}$<br>$\frac{1}{2} = \frac{2}{4}, \frac{3}{6}, \frac{4}{8}, \frac{5}{10}$ | Class discussion | Finding equivalent fractions                      | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5 PAGE 117    |
|   | 3 | NUMERACY | FRACTIONS | REDUCING FRACTIONS          | Effective communication and problem solving | <b>The learner:</b><br>1. Derives common factors of given parts of a fraction.<br>2. Uses the GCF to reduce the given fraction | Reducing fractions  | <b><u>REDUCING FRACTIONS</u></b><br><b>Example</b><br>Reduce $\frac{12}{24}$ to its simplest term<br>$F_{12} = \{1, 2, 3, 4, 6, 12\}$<br>$F_{24} = \{1, 2, 3, 4, 6, 8, 12, 24\}$<br>$CF = \{1, 2, 3, 4, 6, 12\}$<br>$GCF = 12$<br>$\frac{12}{24} \div 12$<br>$= \frac{1}{2}$  | Class discussion | Reducing fractions using GCF.                     | Chalkboard illustration | A NEW MK PRIMARY MTC<br>BK 5 PAGE 118 |





|   |   |          |           |   |   |  |  |   |                  |   |                         |  |
|---|---|----------|-----------|---|---|--|--|---|------------------|---|-------------------------|--|
| 9 | 4 | NUMERACY | FRACTIONS | WORD PROBLEMS IN SUBTRACTION OF FRACTIONS | Critical thinking and problem solving       | <b>The learner:</b> <ol style="list-style-type: none"> <li>Solves word problems involving subtraction of fractions</li> <li>Changes mixed fractions to improper fractions before adding the fractions</li> <li>Reduces the fractions to simpler terms or change it to mixed fractions</li> </ol>                   | Subtraction of fractions with different denominators                                 | <b>WORD PROBLEMS IN SUBTRACTION OF FRACTIONS</b><br>Example<br>A baby was given $\frac{5}{6}$ litres of milk and drunk $\frac{7}{12}$ litres. How much milk remained?<br>Given – Drunk<br>$= \frac{5}{6} - \frac{7}{12}$<br>$= \frac{10 - 7}{12}$ <b>LCM = 12</b><br>$= \frac{3}{12}$ <b>Reduce</b><br>$= \frac{1}{4}$  | Class discussion | Subtraction of fractions with different denominators                    | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5 PAGE 127       |
|   |   |          |           | ADDITION AND SUBTRACTION OF FRACTIONS     | Effective communication and problem solving | <b>The learner:</b> <ol style="list-style-type: none"> <li>Solves fractions by adding and subtracting.</li> <li>Applies the knowledge of BODMAS when adding and subtracting fractions</li> <li>Changes mixed fractions to improper fractions before adding the fractions</li> <li>Reduces the fractions</li> </ol> | Subtraction and addition of fractions with different denominators                    | <b>ADDITION AND SUBTRACTION OF FRACTIONS</b><br>Example<br>$\frac{1}{2} + \frac{1}{3} - \frac{1}{4}$ <b>LCM = 12</b><br>$= \frac{6 + 4 - 3}{12}$ <b>Add first</b><br>$= \frac{10 - 3}{12}$<br>$= \frac{7}{12}$  | Class discussion | Mixed addition and subtraction of fractions with different denominators | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5 PAGE 128       |
|   |   |          |           | MULTIPLICATION OF FRACTIONS               | Effective communication and problem solving | <b>The learners:</b> <ol style="list-style-type: none"> <li>Multiplies fractions by wholes.</li> <li>Converts 'of' to a times sign.</li> <li>Reduces the answers to simpler terms.</li> </ol>  | Reading and solving problems involving multiplication of fractions by whole numbers. | <b>MULTIPLICATION OF FRACTIONS</b><br><b>Example I</b><br>$\frac{1}{4} \times 3$<br>$= \frac{1}{4} \times \frac{3}{1}$ $= \frac{1 \times 3}{4 \times 1}$<br>$= \frac{3}{4}$<br><b>Example II</b><br>$\frac{1}{2}$ of 16 'of' becomes x<br>$= \frac{1}{2} \times 16$<br>$= \frac{1}{2} \times \frac{16}{1}$<br>$= \frac{1 \times 16}{2 \times 1} = \frac{16}{2}$<br><b>Reduce</b><br>$= 8$ | Class discussion |   | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5 PAGE 129 – 130 |

|    |   |          |  |   |   |   |  |  |                  |   |                         |   |  |
|----|---|----------|--|---|---|---|--|--|------------------|---|-------------------------|---|--|
| 10 | 2 | NUMERACY |  | WORD PROBLEMS INMULTIPLICATION OF FRACTIONS | Effective communication and problem solving | <b>The learner:</b><br>1. Solves word problems involving multiplication of fractions<br>2. Changes mixed fractions to improper fractions before adding the fractions<br>3. Reduces the fractions to simpler terms or change it to mixed fractions | Reading and solving problems involving multiplication of fractions by whole nbers.   | <b>WORD PROBLEMS IN MULTIPLICATION OF FRACTIONS</b><br><b>Example</b><br>A mathematics book contains 200 pages. A pupil reads $\frac{3}{5}$ of the book. How many pages did the pupil read?<br>A pupil reads $\frac{3}{5}$ of 200 pages.<br>$= \frac{3}{5}$ of 200 pages<br>$= \frac{3}{5} \times \frac{200}{1}$ Pages<br>$= 3 \times \frac{200}{5}$ pages<br>$= 3 \times 40$<br>$= 120$ Pages                               | Class discussion |   | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5<br>PAGE 131 - 132 |  |
|    |   |          |  | FRACTIONS                                   | Effective communication and problem solving | <b>The learner:</b><br>1. Give the reciprocal of a fraction given.<br>2. Give reciprocals of whole numbers.   | Reading and solving problems involving multiplication of fractions by whole nbers.   | <b>RECIPROCAL OF FRACTION</b><br><b>Example</b><br>a) The recip. of $6 = \frac{6}{1}$<br>b) The recip. of $\frac{2}{3} = \frac{3}{2}$<br>c) The recip. of $\frac{5}{8} = \frac{8}{5}$<br>d) The recip. of $1\frac{1}{2} = \frac{2}{3}$   | Class discussion | ii) Multiplication of fractions by fractions. | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5 PAGE 133          |  |
|    |   |          |  | FRACTIONS                                   | Effective communication and problem solving | <b>The learner:</b><br>1. States the underlying principle of when a fraction is multiplied by its reciprocal, the answer is always 1.<br>2. Works out the reciprocal of a fraction.<br>3. Solves related problems involving reciprocals           | Reading and solving problems involving multiplication of fractions by whole numbers. | <b>RECIPROCAL BY CALCULATION</b><br>We should take note that a number multiplied by its reciprocal gives 1<br><b>Example</b><br>What is the reciprocal of $\frac{3}{5}$ ?<br>Let the recip. be y<br>$\frac{3}{5} \times y = 1$<br>$\frac{3}{5} \times \frac{y}{1} = 1$<br>$\frac{3y}{5} = \frac{1}{1}$<br>$3y \times 1 = 5 \times 1$<br>$\frac{3y}{3} = \frac{5}{3}$<br>$y = \frac{5}{3}$<br>The reciprocal is $\frac{5}{3}$ | Class discussion | Multiplication of fractions by fractions.     | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5 PAGE 133          |  |

|    |   |          |           |   |   |  |  |   |                  |   |                         |  |  |
|----|---|----------|-----------|---|---|--|--|---|------------------|---|-------------------------|--|--|
|    | 5 | NUMERACY | FRACTIONS | DIVISION OF FRACTIONS                     | Effective communication and problem solving | <b>The learner:</b><br>1. Carries out division of fractions making necessary changes involving use of reciprocal.<br>2. Simplifies the fractions by canceling using the common factors.  | Reading and solving problems involving division of fractions | <b><u>DIVISION OF FRACTIONS</u></b><br><br><b>Example I</b><br>Divide: $\frac{1}{5} \div 4$<br>$= \frac{1}{5} \div \frac{4}{1}$<br>$= \frac{1}{5} \times \frac{1}{4}$<br>$= \frac{1 \times 1}{5 \times 4}$<br>$= \frac{1}{20}$  | Class discussion | Division of fractions by whole numbers    | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5 PAGE 134 - 140 |  |
| 11 | 1 | NUMERACY | FRACTIONS | EXPRESSING FRACTIONS AS DECIMAL FRACTIONS | Effective communication and problem solving | <b>The learner:</b><br>1. Describes decimal places.<br>2. Converts fractions whose denominators are multiples of ten to decimal fractions.<br>3. Uses the number of zeros a denominator has to determine the number of decimal places.<br>4. Expresses mixed fractions as decimals by changing the mixed fraction to an improper fraction first. | Reading and solving problems involving division of fractions | <b><u>EXPRESSING FRACTIONS AS DECIMAL FRACTIONS</u></b><br><br><b>Example</b><br>a) Write $\frac{25}{10}$ as a decimal fraction<br><br>$\frac{25}{10} = \underline{2.5}$ (1 zero 1 dec. place)<br><br>b) Write $\frac{25}{100}$ as a dec. fraction<br><br>$\frac{25}{100} = \underline{0.25}$ (2 zeros, 2 dec.places) | Class discussion | Converting fractions to decimals          | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5 PAGE 141 - 142 |  |
|    | 2 | NUMERACY | FRACTIONS | CHANGING DECIMALS TO FRACTIONS            | Effective communication and problem solving | <b>The learner:</b><br>1. Uses the number of decimal places to determine the denominators.<br>2. Converts decimals to common fractions.<br>3. Reduces fractions where necessary.   | Reading and solving problems involving division of fractions | <b><u>CHANGING DECIMALS TO FRACTIONS</u></b><br><br><b>Example</b><br>Express 6.9 as a common fraction.<br>$6.9 = \frac{69}{10}$ . (1 dec. place gives 1 zero on the denominator).<br>$= \frac{69}{10}$ . Change to mixed.<br>$= 6\frac{9}{10}$   | Class discussion | Converting decimals to fractions and vice | Chalkboard illustration | A NEW MK PRIMARY MTC BK 5 PAGE 143       |  |







## P.5 MTC SCHEMES OF WORK TERM THREE

| WK    | PD          | THM    | TPC         | S/TP   | L/SKL                                  | COMPETENCES  |  | CONTENT  | METH                                       | ACT   | L/AID                                   | REF                          | RE |   |   |      |     |     |     |     |     |     |  |   |                         |                                   |  |
|-------|-------------|--------|-------------|--------|--|--|--|--|--|---|---|------------------------------|----|---|---|------|-----|-----|-----|-----|-----|-----|--|---|-------------------------|-----------------------------------|--|
|       |             |        |             |        |  | SUBJECT  | LANGUAGE   |  |  |   |   |                              |    |   |   |      |     |     |     |     |     |     |  |   |                         |                                   |  |
| 2     | 1<br>&<br>2 | Graphs | Pictographs | TABLES | Critical thinking and problem solving  | <b>The leaner:</b><br>1. Represents and interpret the information on the pictograph.<br>2. Answers the questions about the pictograph. | <b>The leaner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>PICTOGRAPH</b><br>Information is represented in pictorial form.<br>It always has a title and scale.<br><br><b>Example:</b><br>Study the pictograph below and answer the questions that follow.<br>Number of pupils who scored different grades:<br><b>(Refer to Pictograph in notes pg.1)</b><br>a) How many sat for the test?<br>b) How many are in excellent grade?<br>Exc = 2 ½<br>@ star = 10 pupils<br>2 ½ = 5/ 2 x 10 <sup>5</sup><br>= 25 pupils.  | Demonstration<br>Discussion<br>Observation | Drawing a pictograph<br>Learners will do exercise A1 in the lesson notes. | Mk text books<br>Real objects e.g. pens | New Mk Bk. 5<br>Page 214–217 |    |   |   |      |     |     |     |     |     |     |  |   |                         |                                   |  |
| 2     | 3<br>&<br>4 | Graphs | Tables      | TABLES | Critical thinking and Problem solving. | <b>The leaner :</b><br>Answers questions about the table.  | <b>The leaner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>READING AND INTERPRETING TABLES</b><br><br><b>Example:</b><br>A farmer recorded the number of pineapples he harvested each month as shown in the table below;<br><table border="1"><tr><th>Month</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th></tr><tr><th>Ppls</th><td>420</td><td>360</td><td>330</td><td>380</td><td>400</td><td>480</td></tr></table><br>1. Highest number of pineapples was harvested in June.<br>2. The lowest harvest was in June.<br>3. The difference between the highest and the lowest was;<br>480 – 330 = 150.<br>d) The sum of all pineapples Harvested was 2370. | Month                                      | J   | F                                       | M                            | A  | M | J | Ppls | 420 | 360 | 330 | 380 | 400 | 480 | Discovery<br>Discussion<br>Observation | Learner's participation in class discussion<br>Learners will do exercise A2 in the lesson notes | Chalkboard illustration | Mk 2000 (new)<br>Bk. 5 Pg 218–219 |  |
| Month | J           | F      | M           | A      | M                                      | J  |  |  |  |   |   |                              |    |   |   |      |     |     |     |     |     |     |  |   |                         |                                   |  |
| Ppls  | 420         | 360    | 330         | 380    | 400                                    | 480  |  |  |  |   |   |                              |    |   |   |      |     |     |     |     |     |     |  |   |                         |                                   |  |

|      |             |        |                |                    |  |  |   |  |                             |  |  |                                      |       |     |      |    |    |    |    |    |                                     |  |                         |  |  |
|------|-------------|--------|----------------|--------------------|--|--|---|--|-----------------------------|--|--|--------------------------------------|-------|-----|------|----|----|----|----|----|-------------------------------------|--|-------------------------|--|--|
| 2    | 5<br>&<br>6 | Graphs | Drawing tables | Tables             | Critical thinking and problem solving. | <b>The learner:</b><br>1. Draws tables and represent the information given<br>2. Solves problems related to the table. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>DRAWING AND INTERPRETING TABLES</b><br>Example<br>A farmer collected 20 eggs on Monday, 25 on Tuesday, 15 on Wednesday, 30 on Thursday and 25 on Friday.<br><b>Draw a table to represent the above information.</b> <table border="1"><tr><td>Day</td><td>Mon.</td><td>Tue</td><td>Wed.</td><td>Thur.</td><td>Fri</td></tr><tr><td>Eggs</td><td>20</td><td>25</td><td>15</td><td>30</td><td>25</td></tr></table> <b>Questions.</b><br>On which day was the highest number of eggs collected?.....<br>Etc. | Day                         | Mon.   | Tue  | Wed.                                 | Thur. | Fri | Eggs | 20 | 25 | 15 | 30 | 25 | Discovery Discussion<br>Observation | Learner's participation in class discussion<br>Learners will do Exercise A3 in Lesson notes. | Chalkboard illustration | Mk 2000 (new)<br>Bk. 5<br>Page 220 – 221 |  |
| Day  | Mon.        | Tue    | Wed.           | Thur.              | Fri                                    |  |   |  |                             |  |  |                                      |       |     |      |    |    |    |    |    |                                     |  |                         |  |  |
| Eggs | 20          | 25     | 15             | 30                 | 25                                     |  |   |  |                             |  |  |                                      |       |     |      |    |    |    |    |    |                                     |  |                         |  |  |
| 2    | 7<br>&<br>8 | Graphs | Bar graphs     | Drawing bar graphs | Drawing and problem solving.           | <b>The learner:</b><br>1. Names the features of a bar graph.<br>2. Solves problems related to the bar graph.           | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>BAR GRAPH:</b><br>Features of a bar graph<br>Title<br>Vertical axis<br>Horizontal axis<br><b>(Refer to the graph in notes pg.4)</b><br><b>Interpretation of a bar graph</b><br><b>Example:</b><br><b>(Refer to the graph in notes pg.4)</b><br>On which day were more eggs collected? etc   | Discovery Guided discussion | Interpreting a bar graph by identifying features of a bar graph.<br>Learners will do exercise A4 | Chalkboard illustration.<br>A chart showing a bar graph. | New Mk 2000<br>Bk. 5<br>Pg 221 – 223 |       |     |      |    |    |    |    |    |                                     |  |                         |  |  |

|      |              |        |            |   |  |  |   |   |                      |   |                         |  |    |    |    |      |   |   |   |   |    |   |                  |   |                         |                                      |  |
|------|--------------|--------|------------|---|--|--|---|---|----------------------|---|-------------------------|--|----|----|----|------|---|---|---|---|----|---|------------------|---|-------------------------|--------------------------------------|--|
| 2    | 9<br>&<br>10 | Graphs | Bar graphs | Drawing bar graphs                                | Drawing and problem solving                | <b>The learner:</b><br>1. Represents the information on the bar graph.<br>2. Draws a bar graph using a scale.<br>3. Solves problems related to the bar graph | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>DRAWING A BAR GRAPH FROM TABLES.</b><br><u>Example:</u><br>The table below shows types of food liked by pupils in a P.5 class. <table><tr><td>Ppls</td><td>10</td><td>15</td><td>5</td><td>20</td><td>25</td><td>10</td></tr><tr><td>Food</td><td>I</td><td>M</td><td>P</td><td>C</td><td>Mt</td><td>Y</td></tr></table> <b>I – Irish, M – Millet, P – Potatoes, C – Cassava, Mt – Matooke, Y– Yams.</b><br><u>Graph</u><br><b>(Refer to the graph in notes pg.5)</b><br><br>Which type of food do most pupils prefer?<br>Which food is least liked by pupils? | Ppls                 | 10  | 15                      | 5                                      | 20 | 25 | 10 | Food | I | M | P | C | Mt | Y | Class discussion | Drawing a bar graph<br>Learners will do exercise A5 in the lesson notes | Chalkboard illustration | Mk 2000 (new)<br>Bk. 5<br>Pg 224–226 |  |
| Ppls | 10           | 15     | 5          | 20  | 25   | 10   |   |   |                      |   |                         |  |    |    |    |      |   |   |   |   |    |   |                  |   |                         |                                      |  |
| Food | I            | M      | P          | C   | Mt   | Y  |   |   |                      |   |                         |  |    |    |    |      |   |   |   |   |    |   |                  |   |                         |                                      |  |
| 3    | 1<br>&<br>2  | Graphs | Bar graphs | Recording information from a bar graph to a table | Recording information and problem solving. | <b>The learner :</b><br>1. <b>Records the information from the bar graph to the table.</b><br>2. <b>Solves problems related to the graph given.</b>          | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>RECORDING INFORMATION FROM A BAR GRAPH TO A TABLE</b><br><u>Example</u><br>Study the graph bellow and answer the questions that follow<br><br><b>(Refer to the graph and table in notes pg.6)</b><br><br>What is the graph about?<br>What is shown on the horizontal axis?<br>What is the scale on the vertical axis   | Discovery Discussion | Recording information from a bar graph to a table<br>Learners will do exercise A6 in the lesson notes | Chalkboard illustration | Mk 2000 (new)<br>Bk. 5<br>Pg 227 - 228 |    |    |    |      |   |   |   |   |    |   |                  |   |                         |                                      |  |

|        |             |        |                 |                         |   |   |   |  |                                |  |  |                                      |   |   |        |    |    |    |    |   |                                    |   |                         |                                   |  |
|--------|-------------|--------|-----------------|-------------------------|---|---|---|--|--------------------------------|--|--|--------------------------------------|---|---|--------|----|----|----|----|---|------------------------------------|---|-------------------------|-----------------------------------|--|
|        | 3<br>&<br>4 | Graphs | Bar line graph  | Drawing bar line graphs | Recording information and problem solving | <b>The learner:</b><br>1. Interprets bar line graph.<br>2. Solves problems related to the bar graph.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>BAR LINE GRAPH</b><br>Instead of bars, we can use lines to form bar line graphs.<br><u>Example</u><br>The graphs below show the age and weight of five pupils;<br>A: Age of pupils<br><b>Refer to the graph and table in notes pg.9)</b><br><br>B: Weight of pupils;<br><b>Refer to the graph and table in notes pg.9)</b><br><b>A:</b><br>Name the pupils with same age.<br>How old is the youngest pupil?<br>How old is Aisha?<br>Who is 10 years old? Etc.<br><b>B:</b><br>How heavy is Ronald?<br>Name the pupils with same weight.<br><b>How much heavier is Hakim than Ronald? Etc.</b> | Guided discussion<br>Discovery | <b>Interpreting bar line graphs given.</b><br>Learners will do exercise A7 in the lesson notes | Chalkboard illustration<br>Chart of a bar line graph | Mk 2000 (new)<br>Bk. 5<br>Pg 229–230 |   |   |        |    |    |    |    |   |                                    |   |                         |                                   |  |
| 3      | 5<br>&<br>6 | GRAPHS | Bar line graphs | Drawing bar line graph  | Critical thinking and problem solving     | <b>The learner:</b><br>1. <b>Draws bar line graphs using the information in the table.</b><br>2. <b>Solves problems related to the bar graph.</b> | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>DRAWING BAR LINE GRAPHS USING INFORMATION IN TABLES</b><br><u>Example:</u><br>A driver recorded the amount of fuel he used through out the week<br><table><tr><td>Day</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td></tr><tr><td>Amount</td><td>10</td><td>20</td><td>25</td><td>15</td><td>5</td></tr></table><br><u>Bar line graph</u><br><b>Refer to the graph in notes pg.11)</b><br>Which day did he use least amount of fuel? etc   | Day                            | M  | T  | W                                    | T | F | Amount | 10 | 20 | 25 | 15 | 5 | Demonstration<br>Guided discussion | Drawing bar line graphs<br>Solving problems related to bar line graphs.<br>Learners will do exercise A8 in the lesson notes | Chalkboard illustration | Mk 2000 (new)<br>Bk. 5<br>Page230 |  |
| Day    | M           | T      | W               | T                       | F   |   |   |  |                                |  |  |                                      |   |   |        |    |    |    |    |   |                                    |   |                         |                                   |  |
| Amount | 10          | 20     | 25              | 15                      | 5   |   |   |  |                                |  |  |                                      |   |   |        |    |    |    |    |   |                                    |   |                         |                                   |  |

|   |             |           |             |  |  |   |   |   |  |  |  |                                      |  |
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| 3 | 7<br>&<br>8 | MEASURERS | TEMPERATURE | READING TEMPERATURE                      | Effective communication and problem solving  | <b>The learner:</b><br>1. Defines temperature.<br>2. Names the instruments used to measure temperature.<br>3. Names the units for measuring temperature.<br>4. Solves problems related to temperature by subtraction. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>MEASURING TEMPERATURE</b><br>Definition of temperature;<br>An instrument used to measure temperature<br>Units used to measure temperature (°C and °F)<br>Solving problems related to temperature by subtracting.<br><br><u>Example</u><br>The temperature of food at the time of serving was 95°C. After leaving it on the plate for 10 minutes, its temperature was 48°C<br>What was the fall in temperature?<br><br>Temp. at serving = 95°C<br>After 10 minutes = 48°C<br><br>Fall in temperature = 95°C – 48°C<br>= <b>47°C</b> | Discussion<br>Observation                  | -Solving some numbers related to temperature.<br>- Discussing work on page 233 of new Mk Bk. 5.<br>-Learners will do exercise B1 in the lesson notes | Chalkboard illustration<br>New Mk text books | Mk 2000 (new)<br>Bk. 5<br>Pg 233–234 |  |
| 3 | 9           | Measures  | Temperature | Reading maximum and minimum temperature. | Effective communication and problem solving. | <b>The learner:</b><br>1. Reads the maximum and minimum temperature.<br>2. Solves problems related to maximum and minimum temperature.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>READING MAXIMUM AND MINIMUM TEMPERATURE</b><br><u>Example:</u><br>Study the maximum and minimum thermometer below;<br><b>Refer to the thermometer in notes pg.13)</b><br>Maximum Temp. = 40°C<br>Minimum Temp. = -20°C<br>Difference between max. & Min. temp. = 40°C – (-20°C)<br>= 40 + 20<br>= <b>60°C</b>  | Discussion<br>Oral questioning and answer. | -Drawing thermometers and reading temperature on them.<br>-Learners will do exercise B2 in the lesson notes  | Chalkboard illustration                      | New Mk 2000<br>Bk. 5<br>Pg 235 - 226 |  |

| 3    | 10    | Measures | TEMPERATURE | MAXIMUM AND MINIMUM TEMPERATURE | Critical thinking and problem solving | <p><b>The learner:</b></p> <ol style="list-style-type: none"><li>1. Draws a bar graph to represent the maximum and minimum temperature.</li><li>2. Interprets the temperature graph.</li><li>3. Solves simple problems related to the temperature graphs.</li></ol> | <p><b>The learner:</b></p> <ol style="list-style-type: none"><li>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.</li><li>2. Spells the vocabularies correctly.</li></ol> | <p><b><u>DRAWING AND INTERPRETING A BAR GRAPH TO REPRESENT MAXIMUM AND MINIMUM TEMP.</u></b></p> <p><u>Example</u><br/>Draw a bar graph to represent the maximum and minimum temp. below</p> <table><tr><th>Time</th><th>10pm</th><th>11pm</th><th>12midnight</th></tr><tr><td>Max.</td><td>5</td><td>10</td><td>10</td></tr><tr><td>Min.</td><td>10</td><td>20</td><td>15</td></tr></table> <p><b>Refer to the graph in notes pg.14)</b></p> | Time                                 | 10pm   | 11pm                        | 12midnight                   | Max. | 5 | 10 | 10 | Min. | 10 | 20 | 15 | Guided discussion | -Drawing bar graphs from given rates of temperature.<br>-Learners will do exercise B3 in the lesson notes. | Chart of an illustrated drawing of a bar graph. | Mk 2000 (new) Bk. 5 Page 236 |  |
|------|-------|----------|-------------|---------------------------------|---------------------------------------|---|--|---|--------------------------------------|--|-----------------------------|------------------------------|------|---|----|----|------|----|----|----|-------------------|--|---|------------------------------|--|
| Time | 10pm  | 11pm     | 12midnight  |                                 |                                       |   |  |   |                                      |  |                             |                              |      |   |    |    |      |    |    |    |                   |  |   |                              |  |
| Max. | 5     | 10       | 10          |                                 |                                       |   |  |   |                                      |  |                             |                              |      |   |    |    |      |    |    |    |                   |  |   |                              |  |
| Min. | 10    | 20       | 15          |                                 |                                       |   |  |   |                                      |  |                             |                              |      |   |    |    |      |    |    |    |                   |  |   |                              |  |
| 4    | 1 & 2 | MEASURES | MONEY       | BUYING AND SELLING (Profit)     | Critical thinking and problem solving | <p><b>The learner:</b></p> <ol style="list-style-type: none"><li>1. Applies formula for finding profit.</li><li>2. Calculates profit for a given business transaction.</li></ol>  | <p><b>The learner:</b></p> <ol style="list-style-type: none"><li>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.</li><li>2. Spells the vocabularies correctly.</li></ol> | <p><b><u>BUYING AND SELLING.</u></b></p> <p><u>PROFIT</u></p> <p><b>PROFIT = Selling price – Buying Price Or</b></p> <p><b>P = SP – CP (BP)</b></p> <p><u>Example</u><br/>John bought a bucket for 2000/= and sold it at 2,400/=. Find his profit.</p> <p>Cost price = 2,000/=</p> <p>Selling price = 2,400/=</p> <p>Profit = SP – CP</p> <p>= 2,400 – 2,000</p> <p>= <b>400/=</b></p> <p>Profit = 400/=</p>                                  | Guided discussion<br>Use of examples | Learners will do exercise B4 in the lesson notes | Coins of 500, 200, 100, 50. | Mk 2000 (new) Bk. 5 Page 245 |      |   |    |    |      |    |    |    |                   |  |   |                              |  |



|   |       |          |       |  |  |  |   |  |                   |   |                          |                              |  |
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| 4 | 3 & 4 | MEASURES | MONEY | BUYING AND SELLING (LOSS)                          | Critical thinking and problem solving  | <b>The learner:</b><br>1. Applies the formula of finding loss.<br>2. Calculates loss in a given transaction.   | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>LOSS</b><br>Loss = Cost price – Selling Price<br>Or = <b>CP – SP</b><br><u>Example</u><br>The cost of a radio is sh. 100,000. If it is sold at sh 80,000, Find the loss made?<br>Loss = cost price – selling price<br>= PC – SP<br>= 100,000 – 80,000<br>= 20,000<br><b>Loss = sh. 20,000.</b>  | Guided discussion | Tr./ Pupils participation in the lesson. Learners will do exercise B5 in the lesson notes | Chalk board illustration | Mk 2000 (new) Bk. 5 Page 245 |  |
| 4 | 5 & 6 | MESURES  | MONEY | FINDING COST PRICE                                 | Critical thinking and problem solving. | <b>The learner:</b><br>1. Applies the formula for finding the cost price when profit and selling price are given.<br>2. Calculates cost price in a given business transaction. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>FINDING COST PRICE WHEN PROFIT AND SP ARE GIVEN</b><br><br><u>Example</u><br>Kitanda sold a cow at sh. 225,000 and made a profit of sh. 35,000. What was his cost price?<br>Cost price = SP – Profit<br>= 225,000 – 35,000<br>= 190,000<br><u>Cost price = sh. 190,000</u>                      | Guided discussion | Learners will do exercise B6 & B7 in the lesson notes                                     | Chalk board illustration | Mk 2000 (new) Bk. 5 Page 246 |  |
| 4 | 7 & 8 | MESURES  | MONEY | FINDING SELLING PRICE WHEN PROFIT OR LOSS IS GIVEN | Critical thinking and problem solving. | <b>The learner:</b><br>1. Applies the formula of finding selling price when profit and loss are given.<br>2. Calculates selling price in a given business transaction.         | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>SELLING PRICE WHEN PROFIT/LOSS IS GIVEN.</b><br><br><u>Example</u><br>A trader bought a shirt at sh. 7,500. She sold it and made a profit of sh. 3,500. What was her selling price?<br><br><b>SP = Buying price + Profit</b><br>= 7,500 + 3,500<br>= 11,000<br><u>She sold it at sh. 11,000</u> | Guided discussion | Learners will do exercise B8 & B9 in the lesson notes                                     | Chalk board illustration | Mk 2000 (new) Bk. 5 Page 247 |  |

|   |       |          |              |                  |  |  |   |  |  |  |                          |                 |  |
|---|-------|----------|--------------|------------------|--|--|---|--|--|--|--------------------------|-----------------|--|
| 4 | 9     | MEASURES | SIMPLE RATES | SIMPLE RATE I    | Critical thinking and problem solving. | <b>The learner:</b><br>Finds the simple rates and proportions in a given business transaction.     | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <u>SIMPLE RATES I</u><br><br><u>Example</u><br>A book costs sh.500. What is the cost of 3 similar books?<br><br>1 book = sh500<br>3books= (3 x 500) Sh.<br>= sh. 1,500<br><br>3 books = sh. 1,500                      | Discussion<br>Demonstration of shopping. | Learner/Tr. participation in the lesson. Learners will do exercise B10 in the lesson notes | Chalk board illustration | New Mktc pg 238 |  |
| 4 | 10    | MEASURES | SIMPLE RATES | SIMPLE RATE II.  | Critical thinking and problem solving. | <b>The learner:</b><br>Finds the simple rates and proportions in a given business transaction.     | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.  | <u>SIMPLE RATES II</u><br><br><u>Example</u><br>6 Pens cost sh. 900, What is the cost of 1 pen?<br><br>6 pens = sh. 900<br>1 pen = $\frac{900}{6}$<br>= sh. 150<br><b><u>1 pen = Sh 150</u></b>                        | Discussion<br>Demonstration of shopping. | Learner/Tr. participation in the lesson. Learners will do exercise B11 in the lesson notes | Chalk board illustration | New Mktc pg 238 |  |
| 5 | 1 & 2 | MEASURES | SIMPLE RATES | SIMPLE RATES III | Critical thing and problem solving.    | <b>The learner:</b><br>Finds the simple rates and problem solving in a given business transaction. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.  | <u>SIMPLE RATES III</u><br><br><u>Example</u><br>5 books cost sh. 1000. Find the cost of 12 similar books.<br><br>5 books = 1,000<br>1 book = $\frac{1,000}{5}$<br>= 200<br>12 bk. = 12 x 200<br>= <b><u>2,400</u></b> | Discussion<br>Demonstration of shopping. | Learner/Tr. participation in the lesson. Learners will do exercise B12 in the lesson notes | Chalk board illustration | New Mktc pg 238 |  |

|       |             |           |                           |                |                                       |   |   |  |                   |   |                           |                   |       |   |         |       |      |   |         |       |       |   |          |       |       |     |           |       |       |  |  |        |                         |   |                           |                   |
|-------|-------------|-----------|---------------------------|----------------|---------------------------------------|---|---|--|-------------------|---|---------------------------|-------------------|-------|---|---------|-------|------|---|---------|-------|-------|---|----------|-------|-------|-----|-----------|-------|-------|--|--|--------|-------------------------|---|---------------------------|-------------------|
| 5     | 3<br>&<br>4 | MEASURES  | BILLS                     | SHOPPING BILLS | Critical thinking and problem solving | <b>The learner:</b><br>1. Draws a bill table to represent the transaction.<br>2. Uses appropriate working methods to complete the bill table. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <u>SHOPPING BILLS (TABLES)</u><br><b>Example</b><br><b>Brenda bought the following items from a shop;</b><br>2 loaves of bread at sh 600 @<br>4 sodas for sh. 500 @<br>2 kg of sugar at sh. 1,000 @<br>A bag of maize flour at sh. 9,000<br>a) What was his expenditure? <table><tr><td>ITEM</td><td>QTY</td><td>M'THD</td><td>AMNT</td></tr><tr><td>Bread</td><td>2</td><td>2 x 600</td><td>1,200</td></tr><tr><td>Soda</td><td>4</td><td>4 x 500</td><td>2,000</td></tr><tr><td>Sugar</td><td>2</td><td>2 x 1000</td><td>2,000</td></tr><tr><td>Flour</td><td>1bg</td><td>1 x 9,000</td><td>9,000</td></tr><tr><td>Total</td><td></td><td></td><td>14,200</td></tr></table><br>b) If she went with sh. 15,000, how much did she remain with as her balance?<br>Balance = 15,000<br>-14,200<br><u>800</u> | ITEM              | QTY   | M'THD                     | AMNT              | Bread | 2 | 2 x 600 | 1,200 | Soda | 4 | 4 x 500 | 2,000 | Sugar | 2 | 2 x 1000 | 2,000 | Flour | 1bg | 1 x 9,000 | 9,000 | Total |  |  | 14,200 | Discussion<br>Discovery | Drawing and completing bill tables<br>Learners will do exercise B14 in the lesson notes | Chalk board illustration. | New Mk Mtc pg 243 |
| ITEM  | QTY         | M'THD     | AMNT                      |                |                                       |   |   |  |                   |   |                           |                   |       |   |         |       |      |   |         |       |       |   |          |       |       |     |           |       |       |  |  |        |                         |   |                           |                   |
| Bread | 2           | 2 x 600   | 1,200                     |                |                                       |   |   |  |                   |   |                           |                   |       |   |         |       |      |   |         |       |       |   |          |       |       |     |           |       |       |  |  |        |                         |   |                           |                   |
| Soda  | 4           | 4 x 500   | 2,000                     |                |                                       |   |   |  |                   |   |                           |                   |       |   |         |       |      |   |         |       |       |   |          |       |       |     |           |       |       |  |  |        |                         |   |                           |                   |
| Sugar | 2           | 2 x 1000  | 2,000                     |                |                                       |   |   |  |                   |   |                           |                   |       |   |         |       |      |   |         |       |       |   |          |       |       |     |           |       |       |  |  |        |                         |   |                           |                   |
| Flour | 1bg         | 1 x 9,000 | 9,000                     |                |                                       |   |   |  |                   |   |                           |                   |       |   |         |       |      |   |         |       |       |   |          |       |       |     |           |       |       |  |  |        |                         |   |                           |                   |
| Total |             |           | 14,200                    |                |                                       |   |   |  |                   |   |                           |                   |       |   |         |       |      |   |         |       |       |   |          |       |       |     |           |       |       |  |  |        |                         |   |                           |                   |
| 5     | 5<br>&<br>6 | MEASURES  | TRANSPORT CHARGES (BILLS) | WORD PROBLEMS  | Critical thinking and problem solving | <b>The learner:</b><br>Computes transport charges in relation to daily real life situation.   | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <u>TRANSPORT CHARGES (WORD)</u><br><u>Example I</u><br>A Taxi driver charges sh. 2,000 for trip from Kampala to Jinja per person. How much will 7 people pay?<br><br>1 person = 2,000/=<br>7 people = 7 x 2,000<br>= <u>14,000/=</u><br><br><u>Example II</u><br>Kagoda travelled from Kampala to Jinja and then back to Kampala. How much will he pay if the return fare is sh. 2,000?<br><br>Going = 2,000<br>Back = 2,000<br>Total = 4,000<br>He will use sh. 4,000   | Guided discussion | Tr./learner Participation in lesson -Learners will do exercise B 15 in the lesson notes | Chalk board illustration. | New Mk Mtc pg 243 |       |   |         |       |      |   |         |       |       |   |          |       |       |     |           |       |       |  |  |        |                         |   |                           |                   |

| 5                | 7<br>&<br>8  | MEASURES | BILLS | TRANSPORT CHARGES (TABLES) | Problem solving. | <b>The learner:</b><br>1. Interprets transport charges using a table.<br>2. Solves problems related to the table.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>TRANSPORT CHARGES (TABLE)</b><br><u>Example</u><br>The table below shows transport charges by bus between different towns in Uganda. Use it to answer the questions that follow:<br><table><tr><th>TOWN</th><th>CHARGES</th></tr><tr><td>KAMPALA – KASESE</td><td>3,500</td></tr><tr><td>KASESE – TORORO</td><td>5,500</td></tr><tr><td>KAMPALA – LUGAZI</td><td>1,500</td></tr><tr><td>MUTUKULA – K'LA</td><td>3,000</td></tr></table><br>a) How much will 3 people pay from Kampala to Kasese?<br>1person = 3,500<br>3people = 3 x 3,500<br>= 10,500<br><u>3 People will pay sh. 10,500</u> | TOWN                 | CHARGES   | KAMPALA – KASESE         | 3,500                        | KASESE – TORORO | 5,500 | KAMPALA – LUGAZI | 1,500 | MUTUKULA – K'LA | 3,000 | Discovery Discussion | -Learners participation in lesson | Chalk board illustration. | Mk (new)<br>Bk. 5<br>pg. 243. |
|------------------|--------------|----------|-------|----------------------------|------------------|--|---|--|----------------------|---|--------------------------|------------------------------|-----------------|-------|------------------|-------|-----------------|-------|----------------------|-----------------------------------|---------------------------|-------------------------------|
| TOWN             | CHARGES      |          |       |                            |                  |  |   |  |                      |   |                          |                              |                 |       |                  |       |                 |       |                      |                                   |                           |                               |
| KAMPALA – KASESE | 3,500        |          |       |                            |                  |  |   |  |                      |   |                          |                              |                 |       |                  |       |                 |       |                      |                                   |                           |                               |
| KASESE – TORORO  | 5,500        |          |       |                            |                  |  |   |  |                      |   |                          |                              |                 |       |                  |       |                 |       |                      |                                   |                           |                               |
| KAMPALA – LUGAZI | 1,500        |          |       |                            |                  |  |   |  |                      |   |                          |                              |                 |       |                  |       |                 |       |                      |                                   |                           |                               |
| MUTUKULA – K'LA  | 3,000        |          |       |                            |                  |  |   |  |                      |   |                          |                              |                 |       |                  |       |                 |       |                      |                                   |                           |                               |
| 5                | 9<br>&<br>10 | MEASURES | BILLS | TRANSPORT CHARGES (GRAPHS) | Problem solving  | <b>The learner:</b><br>1. Interprets the cost charges from the graph in relation to the distance.<br>2. Solves problems in relation to the cost and distance on the graph. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>TRANSPORT CHARGES (GRAPH)</b><br><u>Example</u><br>The Graph below shows bus transport charges along Mukono – Kampala road:<br><br><u>(Refer to the graph in the lesson notes pg 27)</u><br>a) How much will one pay for a distance of 15Km?<br>b) What distance will require me to pay sh. 400?<br>c) What is the difference in the cost of a journey of 15Km and 5Km?   | Discovery Discussion | Interpreting a transport graph<br>Learners will do exercise B16 in the lesson notes | Chalk board illustration | Mk (new)<br>Bk. 5<br>pg. 244 |                 |       |                  |       |                 |       |                      |                                   |                           |                               |

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| 6 | 1<br>&<br>2 | MEASURES | TIME | UNITS OF TIME                | Critical thinking and problem solving. | <b>The learner:</b><br>1. Mentions the units of time.<br>2. Converts hours to minutes.<br>Converts minutes to hours.                    | <b>The learner:</b><br><b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>UNITS OF TIME</b><br>1 Hour - 60 minutes<br>1 Minute - 60 seconds<br>1 Hour - 3,600 seconds<br><u>Converting from one unit to another.</u><br><br><u>Example I</u><br>Convert 2 hours to minutes<br>1 hour = 60 minutes<br>2 hours = 2 x 60<br>= 120<br><u>2 Hours = 120 minutes</u><br><br><u>Example II</u><br>Convert 240 minutes to hours<br>1 minute = 1/60 hours<br>240 minutes = 1/60 x 240<br>= 4<br>240 minutes = 4 hours. | Discussion        | Learner/ Tr. Participation in the lesson. Learners will do exercise B 17 in the lesson notes      | Chalk board illustration.              | •(old)<br>Mk 2000 Pupils Bk.5 pg. 226 – 7. •(new)<br>Pupils Bk5 pg. 250 –3; •(new) Understanding |  |
| 6 | 3<br>&<br>4 | MEASURES | TIME | TELLING TIME USING AM AND PM | Critical thinking and problem solving. | <b>The learner:</b><br>1. Tells time using Am and PM.<br>2. Reads time using quarter past or to.<br>3. Draws a clock face showing time. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly.                        | <b>TELLING TIME USING AM. AND PM</b><br><u>Example</u><br><u>(Refer to clock faces on page 40 of the lesson notes)</u><br>It is 2 O'clock in the morning or 2.00 am.<br><br><u>Telling time using ½, ¼, “Past” or “To”</u>   | Guided discussion | Reading time from a clock face<br>Learners will do exercise B18 in the lesson notes               | Clock face<br>Chalk board illustration | Mk MTh (new)<br>Bk. 5<br>pg. 250 – 3 (old)<br>226-7.   |  |
| 6 | 5           | MEASURES | TIME | ADDITION OF TIME             | Problem solving                        | <b>The learner:</b><br>Adds time using finite system.   | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly.                        | <b>ADDITION OF TIME</b><br><u>Example</u><br>Workout:<br><br>Hours    Min<br>10      50<br>+ 2      30<br><u>13      20</u> { $\frac{80}{60}$ = 1 r 20 }<br><br>= <u>13 Hours 20 Minutes.</u>  | Guided discussion | Tr./ Learner participation in the discussion<br>Learners will do exercise B19 in the lesson notes | Chalk board illustration               | Understanding MTh Pupils Bk. 5 Pg. 228-240   |  |

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| 6 | 6 | MEASURES | TIME | SUBTRACTION ON TIME                              | Problem solving                       | <b>The learner:</b><br>1. Subtracts time.<br>2. Regroups correctly in finite system when borrowing.                 | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>SUBTRACTION OF TIME</b><br><u>Example</u><br><br>Hrs.    M<br>9<br>40    30+60<br>2    45<br>7    45 (90-45=45)<br><br><u>7 Hours 45Minutes</u>   | Guided discussion | Learners' participation in discussion<br>Learners will do exercise B20 in the lesson notes | Chalk board illustration | Understanding MTh Pupils Bk. 5 Pg 240 |  |
| 6 | 7 | MEASURES | TIME | FINDING DURATION INVOLVING AM AND PM; PM AND AM. | Critical thinking and problem solving | <b>The learner:</b><br>1. Finds the duration involving AM and PM.<br>2. Solves problems of duration by subtraction. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>FINDING DURATION INVOLVING "AM" AND "AM"; "PM" AND "PM"</b><br><u>Example</u><br><b>Luyiga started walking from her home at 7.15 am and reached the town at 9.15 am. How long did it take her?</b><br><br>Hours    Minutes<br>Reached    9 : 15 am<br>Stared    - 7 : 05 am<br>2 : 10<br><u>It took her 2Hours 10 Minutes</u> | Guided discussion | Finding the duration by subtracting<br>Learners will do exercise B21 in the lesson notes   | Chalk board illustration | (New) Mk Bk. 5 pg. 252                |  |

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| 6 | 8      | MEASURES | TIME | FINDING DURATION INVOLVING AM AND PM . | Problem solving.               | <b>The learner:</b><br>1. Finds duration of activities involved the Am and PM.<br>2. Subtracts and add to find time duration.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>FINDING DURATION INVOLVING “AM AND “PM”</b><br><b>Example</b><br>The bus started its journey to Mbale at 9 : 00 am and reached its destination at 1 : 30 p.m. How long did the journey take?<br><br><b>Subtract</b> 12 : 00 noon<br>-    9 : 00 am<br><b>3 Hours</b><br><br><b>Next add</b> 3 Hours 00min<br>+ 1 Hour 30 min<br><b>4 Hours 30 min</b> | Guided discussion              | Finding the duration involving am /p.m. Learners will do exercise B22 in the lesson notes | Chalk board illustration               | (New Mk) Bk. 5 page 252               |  |
| 6 | 9 & 10 | MEASURES | TIME | TIME TABLE                             | Problem solving                | <b>The learner:</b><br>1. Interprets the distance on the timetable.<br>2. Solves problems related to the timetable.<br>3. Comprehends the distance timetable and solve the given problems. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>TIME TABLES</b><br><b>Example</b><br>The table below is a distance timetable for a bus travelling from Masindi to Kitgum. Use it to answer questions that follow.<br><br><b>(Refer to table on page 35 of the lesson notes)</b><br><br>a) At what time did the bus reach Kamudni?<br>b) What time did the bus leave Lira?                             | Guided discussion<br>Discovery | Drawing and interpreting tables<br>Learners will do exercise B23 in the lesson notes      | Chalk board illustration               | (new) Mk Bk. 5 pg. 253                |  |
| 7 | 1 & 2  | MEASURES | TIME | 12 HOUR CLOCK SYSTEM UNITS             | Critical thinking. and problem | <b>The learner:</b><br>1. Reads time in the 12-hour clock system.<br>2. Uses pm and am correctly.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>12 Hour clock system Units</b> <ul style="list-style-type: none"> <li>• Morning am (anti meridian)</li> <li>• Afternoon p.m. ( Post meridian)</li> <li>• The use of “to” and “past”</li> <li>• A new day begins at midnight</li> <li>• A day has 24 hours</li> </ul>  | Guided discussion              | Reading time in 12 hour time. Learners will do exercise B24 in the lesson notes           | Chalk board illustration<br>Clock face | Understanding MTh Pupils Bk. 5 Pg 250 |  |

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| 7                    | 3<br>&<br>4   | MEASURES | TIME | 24 HOUR CLOCK                       | Critical thinking and problem solving | The learner:<br>1. Reads time in the 24-hour system.<br>2. Uses hours correctly.  | The learner:<br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | 24 Hour Clock                       | Guided discussion                 | Learners participation in lesson  | Chalk board illustration Clock face | Understanding MTh Pupils Bk. 5 Pg 250-1 |  |             |
|                      |               |          |      |                                     |                                       |   |  | i) Units used “Hours”               |                                   |   |                                     |   |  |             |
|                      |               |          |      |                                     |                                       |   |  | 12 Hr Clock                         |                                   |   |                                     |   |  | 24 Hr Clock |
|                      |               |          |      |                                     |                                       |   |  | 12:00am (midnight)                  |                                   |   |                                     |   |  | 0000Hrs     |
|                      |               |          |      |                                     |                                       |   |  | 1:00 am                             |                                   |   |                                     |   |  | 0100 Hrs    |
|                      |               |          |      |                                     |                                       |   |  | 2:00 am                             |                                   |   |                                     |   |  | 0200 Hrs    |
|                      |               |          |      |                                     |                                       |   |  | 3:00 am                             |                                   |   |                                     |   |  | 0300 Hrs    |
|                      |               |          |      |                                     |                                       |   |  | 4:00 am                             |                                   |   |                                     |   |  | 0400 Hrs    |
|                      |               |          |      |                                     |                                       |   |  | 5:00 am                             |                                   |   |                                     |   |  | 0500 Hrs    |
|                      |               |          |      |                                     |                                       |   |  | 6:00 am                             |                                   |   |                                     |   |  | 0600 Hrs    |
|                      |               |          |      |                                     |                                       |   |  | 7:00 am                             |                                   |   |                                     |   |  | 0700 Hrs    |
|                      |               |          |      |                                     |                                       |   |  | 8:00 am                             |                                   |   |                                     |   |  | 0800 Hrs    |
|                      |               |          |      |                                     |                                       |   |  | 9:00 am                             |                                   |   |                                     |   |  | 0900 Hrs    |
|                      |               |          |      |                                     |                                       |   |  | 10:00 am                            |                                   |   |                                     |   |  | 1000 Hrs    |
| 11:00 am             | 1100 Hrs      |          |      |                                     |                                       |   |  |                                     |                                   |   |                                     |   |  |             |
| 12:00 p.m. (mid day) | 1200 Hrs      |          |      |                                     |                                       |   |  |                                     |                                   |   |                                     |   |  |             |
| 1:00 p.m.            | 1300 Hrs etc. |          |      |                                     |                                       |   |  |                                     |                                   |   |                                     |   |  |             |
| 7                    | 5             | MEASURES | TIME | 12 HOUR CLOCK TO 24 HOUR CLOCK TIME | Problem solving                       | The learner:<br>1. Converts 12-hour clock time to 24-hour clock time.<br>2. Writes 24-hour clock time using hours without using points. | The learner:<br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | CONVERTING 12 HR TIME TO 24 HR TIME | Guided discussion<br>Observation. | Learners participation in lesson<br>Learners will do exercise B25 in the lesson notes | Chalk board illustration Clock face | Understanding MTh Pupils Bk. 5 Pg 182   |  |             |
|                      |               |          |      |                                     |                                       |   |  | Example                             |                                   |   |                                     |   |  |             |
|                      |               |          |      |                                     |                                       |   |  | What is 1.00pm in 24hour time?      |                                   |   |                                     |   |  |             |
|                      |               |          |      |                                     |                                       |   |  | 1.00                                |                                   |   |                                     |   |  |             |
|                      |               |          |      |                                     |                                       |   |  | +12.00                              |                                   |   |                                     |   |  |             |
|                      |               |          |      |                                     |                                       |   |  | 1300 hours                          |                                   |   |                                     |   |  |             |
|                      |               |          |      |                                     |                                       |   |  | So 1.00pm = 1300hours               |                                   |   |                                     |   |  |             |



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| 7 | 6     | MEASURES | TIME             | 24 HOUR CLOCK TO 12 HOUR<br>CLOCK TIME | Problem<br>solving | <b>The learner:</b><br>1. Converts 24 hours to 12 hours.<br>2. Writes 12 hours in am or pm. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>CONVERTING 12 HR TIME TO 24 HR TIME</b><br><b>Example</b><br>Change 1545hours to 12 hour time<br>15.45<br>-12.00<br><b>3.45pm</b><br><br><b>So 1545hours = 3.45pm.</b>   | Guided discussion<br>Observation. | Learners participation in lesson<br>Learners will do exercise B26 in the lesson notes  | Chalk board illustration<br>Clock face | Understanding MTh<br>Pupils Bk. 5 Pg 183 |  |
| 7 | 7 & 8 | MEASURES | RATES OF CHARGES | DISTANCE TIME AND SPEED                | Problem<br>solving | <b>The learner:</b><br>1. Finds the distance.<br>2. Calculates the speed.                   | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>DISTANCE, TIME AND SPEED</b><br><b>DISTANCE:</b><br>Distance = Speed x Time<br><b>Example:</b><br>Find the distance covered by a driver for 2 hours at a speed of 60 km/hr<br><br>Distance = Speed x Time<br>= 60km/hr x 2 hrs<br>= 60 km x 2<br>= 120km<br>He covered 120 km. | Guided discussion                 | Learner / Tr. participation in the lesson.<br>Learners will do exercise B27 in the lesson notes<br><br>Learners will do exercise B28 in the lesson notes | Chalk board illustration               | (new) Mk Bk. 5<br>Pg. 254 – 258          |  |

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| 7 | 9  | MEASURES | SPEED    | SPEED AND SPEED                    | Problem solving.                       | <b>The learner:</b><br>1. Finds the distance.<br>2. Calculates the speed.                                 | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>SPEED</b><br>Speed = $\frac{\text{Distance}}{\text{Time}}$<br><b>Example:</b><br><b>At what speed does a cyclist travel if he completes a distance of 150km in 3 hrs?</b><br>Speed = $\frac{\text{Distance}}{\text{Time}}$<br>$\frac{150\text{km}}{3\text{hrs}}$<br>$= 50\text{km/hr}$                         | Guided discussion | Learner / Tr. participation in the lesson. Learners will do exercise B27 in the lesson notes                    | Chalk board illustration                                  | (new) Mk Bk. 5 Pg. 254 – 258                   |  |
| 7 | 10 | MEASURES | TIME     | TIME                               | Critical thinking and problem solving  | <b>The learner:</b><br>Calculates the time taken by a moving object to cover a given distance..           | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>TIME</b><br>Time = $\frac{\text{Distance}}{\text{Speed}}$<br><b>Example:</b><br>Calculate the time taken by a car travelling at 60km/hr to cover a journey of 480 km.<br>Time = $\frac{\text{Distance}}{\text{Speed}}$<br>$\frac{480\text{ km}}{60\text{km/hr}}$<br>$= 8$<br>$= 8\text{hr}$<br>$= 8\text{hrs}$ | Guided discussion | Learner / Tr. participation in the lesson. Learners will do exercise B29 in the lesson notes                    | Chalk board illustration                                  | (new) Mk Bk. 5 Pg. 254 – 258                   |  |
| 8 | 1  | MEASURES | CAPACITY | MEASURES IN LITERS AND MILLILITRES | Critical thinking and problem solving. | <b>The learner:</b><br>1. Uses ml or cc as the same units for measuring liquids.<br>2. Compares cc to ml. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>MEASURING IN LITRES AND MILLILITRES.</b><br><br>ii) <b>Comparing soda bottles</b><br>300ml 300cc<br><br>500ml 500cc<br>iii) <b>Comparing milk packets</b><br><br>1litre and 1000 ml<br><br>(Refer to diagrams in the lesson notes Pg.55)   | Guided discussion | Learner / Tr. participation in the lesson. Comparing cc to ml Learners will do exercise B30 in the lesson notes | Chalk board illustration Empty soda bottles tins bottles. | (New) Mk 5 pg. 260-new) Mk Bk. 5 pg. 259 –64.3 |  |

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| 8 | 2<br>&<br>3 | MEASURES  | CAPACITY | CHANGING LITRES TO ML | Critical thinking and problem solving. | <b>The learner:</b><br>1. Changes litres to ml.<br>2. Converts litres to ml with fractions or decimals.    | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b><u>CHANGING LITRES TO ML.</u></b><br><br><b><u>Example</u></b><br><br>Change 7 litres to ml<br><br>1litre = 1000ml<br>7litres = 7 x 1000<br>= <b><u>7000 ml</u></b>   | Guided class discussion | Learner / Tr. Participation in class -Learners will do exercise B31 in the lesson | Chalk board illustration  | (New) Mk 5 pg. 263 |  |
| 8 | 4<br>&<br>5 | MEASURES. | CAPACITY | ML TO LITRES          | Critical thinking and problem solving. | <b>The learner:</b><br>1. Expresses ml to litres.<br>2. Reduces fractions by cancelling then with the LDC. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b><u>EXPRESSING MILLILITRES AS LITRES</u></b><br><b><u>Example</u></b><br>Change 4200 ml to litres<br>1000ml = 1Litre<br>1ml = $\frac{1}{1000}$ litre<br>4200ml = $\frac{1}{1000} \times 4200$<br>= $\frac{42}{100}$ litres<br>= <b><u>4.2 litres</u></b> | Guided discussion       | Learners participation in lesson -Learners will do exercise B32 in the lesson     | Chalk board illustration. | (New) Mk 5 pg. 263 |  |

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| 8 | 6,<br>7<br>&<br>8 | MEASURES | CAPACITY | COMPARING METRIC UNITS | Critical thinking and problem solving. | <b>The learner:</b><br>1. States the meaning of the given metric names.<br>2. Names the basic units for weight, length and capacity.<br>3. Recites the standard ordering of given measures.<br>4. Compares units with standard units. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>COMPARING METRIC UNITS</b><br><b>Meaning of metric names</b> <ul style="list-style-type: none"> <li><b>Place value</b>      b) <b>Meaning</b><br/> Kilo                      1000m<br/> Hecto                    100m<br/> Deca                     10m<br/> Deci                     <math>\frac{1}{10}</math>m<br/> Centi                    <math>\frac{1}{100}</math>m<br/> milli                     <math>\frac{1}{1000}</math>m </li> </ul> <p>Basic measure units for:</p> <ul style="list-style-type: none"> <li>Weight – Gram</li> <li>Length – Metre</li> <li>Capacity – Litres</li> </ul> <p><u>Ordering Weight, length, capacity</u></p> <p>Km Hm Dm <b>M</b> dm Cm Mm</p> <p>Kg Hg Dg <b>G</b> dg Cg Mg</p> <p>Kl Hl Dl <b>L</b> dl Cl Ml</p> <p>Comparing Units with standard units</p> <p>1Km – 1000m    1Kg – 1000g</p> <p>1Hm – 100m     1Hg – 100g</p> <p>1Dm – 10m      1Dg – 10g</p> <p>1M - 1m          1G – 1g</p> <p>1dm - 0.1m      1dg – 0.1g</p> <p>1Cm - 0.01      1Cg – 0.01g</p> <p><b>1Mm - 0.001     1Mg – 0.001g</b></p> <p>1Kltr - 1000ltr</p> <p>1Hltr - 100ltr</p> <p>1Dltr - 10ltr</p> <p>1ltr - 1ltr</p> <p>1dltr - 0.1ltr</p> <p>1Cltr - 0.01ltr</p> <p>1Mltr - 0.001ltr</p> | Guided discussion<br>Discovery | Comparing metric units<br>-Learners will do exercise B33 in the lesson | Chalk board illustration | (new)<br>Mk Bk.<br>5 pg.<br>261 |  |
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| 8 | 9<br>&<br>10 | MEASURES | MASS  | CHANGING KG TO GMS | Critical thinking and problem solving. | <b>The learner:</b><br>1. Converts KG to grams.<br>2. Performs calculations involving fractions.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>CHANGING KG TO GMS</b><br><br><u>Example</u><br>Express 5kg to grams<br>$1\text{kg} = 1000\text{gm}$<br>$5\text{kg} = 5 \times 1000\text{gms}$<br><b><u>= 5000gms</u></b>  | Guided discussion       | Learner/Teacher participation in the lesson.<br>-Learners will do exercise B34 in the lesson | Chalk board illustration                             | (new) Mk bk. 5 pg. 262     |  |
| 9 | 1            | MEASURES | MASS  | GMS TO KMS         | Problem solving.                       | <b>The learner:</b><br>1. Expresses grams to Kg.<br>2. Expresses grams to Kg using fractions.   | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>EXPRESSING GRAMS TO KG</b><br><br><u>Example</u><br>Express 4000g in Kg<br>$1000\text{g} = 1\text{kg}$<br>$1\text{g} = \frac{1}{1000}\text{kg}$<br>$4000\text{g} = \frac{1}{1000} \times 4000$<br><b><u>4000 g = 4kg</u></b> | Guided class discussion | Learners participation in class<br>-Learners will do exercise B35 in the lesson              | Chalk board illustration                             | (New) Mk Bk. 5 Pg. 262     |  |
| 9 | 2<br>3       | GEOMETRY | LINES | LINES              | Critical and creative thinking         | <b>The learner:</b><br>1. Defines a line.<br>2. Defines a line segment.<br>3. Names the types of lines.<br>4. Draws each type.<br>5. Identify the types of lines. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <u>LINES</u><br>5. Definition of a line.<br>6. Definition of a line segment.<br>7. Naming the types of lines.<br>8. Describing each type of line.<br>9. Drawing each type of line.<br>10. Identifying the types of lines.       | Guided discussion       | Learners' participation in the lesson.   | M, Chalkboard illustration<br><br>Desks<br><br>Walls | A new Mk Math page 175-176 |  |

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| 9 | 4     | GEOMETRY | LINES | INTERSECTING LINES   | Problem solving.                       | <b>The learner:</b> <ol style="list-style-type: none"> <li>1. Defines intersecting lines.</li> <li>2. Forms intersecting lines.</li> <li>3. Identifies points of intersection of a given line .</li> <li>4. Names the points of intersection.</li> </ol> | <b>The learner:</b> <ol style="list-style-type: none"> <li>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.</li> <li>2. Spells the vocabularies correctly.</li> </ol> | <u>INTERSECTING LINES</u> <ol style="list-style-type: none"> <li>5. Definition of intersecting lines.</li> <li>6. Forming intersecting lines using straight objects.</li> <li>7. Identifying points of intersection.</li> <li>8. Naming the points of intersection.</li> </ol>   | Guided discussion .                | Drawing intersecting lines. Learners will do Exercise C1                       | Pencils, Rubber Bands, Chalk board illustration                                   | A new Mk Math page 179     |  |
| 9 | 5     | GEOMETRY | LINES | PARALLEL LINES.      | Critical thinking and problem solving. | <b>The learner:</b> <ol style="list-style-type: none"> <li>1. Defines a parallel line.</li> <li>2. Draws the symbol for parallel lines.</li> <li>3. Draws parallel lines.</li> <li>4. Identifies parallel lines from a set of a given lines.</li> </ol>  | <b>The learner:</b> <ol style="list-style-type: none"> <li>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.</li> <li>2. Spells the vocabularies correctly.</li> </ol> | <u>PARALLEL LINES</u> <ul style="list-style-type: none"> <li>• Definition of parallel lines.</li> <li>• The symbol for parallel lines.</li> <li>• Drawing parallel lines.</li> <li>• Identifying parallel lines.</li> </ul>  | -Guided discussion . observation   | Drawing parallel lines. Identifying parallel lines from immediate surrounding. | Objects in and out of the classrooms eg desks ,                                   | A new Mk Math page 175-176 |  |
| 9 | 6 & 7 | GEOMETRY | LINES | PERPENDICULAR LINES. | Critical thinking and problem solving  | <b>The learner:</b> <ol style="list-style-type: none"> <li>3. Describe perpendicular lines.</li> <li>4. Draw a symbol for perpendicular lines.</li> <li>5. Name some shapes with perpendicular lines.</li> </ol>   | <b>The learner:</b> <ol style="list-style-type: none"> <li>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.</li> <li>2. Spells the vocabularies correctly.</li> </ol> | <u>PERPENDICULAR LINES</u> <ol style="list-style-type: none"> <li>1) Description of perpendicular lines.</li> <li>2) The symbol for perpendicular lines.</li> <li>3) Identifying perpendicular lines.</li> <li>4) Identifying perpendicular lines.</li> <li>5) Naming some shapes with perpendicular lines.</li> </ol> | -Guided discussion . - observation | Learners will do Exercise C 3  | Objects in and out of the classrooms eg desks , walls, books , sets, rulers, etc. | A new Mk Math page 180-185 |  |

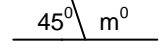
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| 9  | 8 & 9 | GEOMETRY | LINES                                | LINES OF SYMETRY               | Critical thinking and problem solving. | <b>The leaner:</b> <ol style="list-style-type: none"> <li>1. Defines folding lines of symmetry.</li> <li>2. Identifies symmetric and non-symmetric shapes.</li> <li>3. Uses the given shapes to find out the number of folding symmetry.</li> </ol> | <b>The leaner:</b> <ol style="list-style-type: none"> <li>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.</li> <li>2. Spells the vocabularies correctly.</li> </ol> | <u>LINES OF SYMETRY</u> <ol style="list-style-type: none"> <li>4. Definition of line of symmetry.</li> <li>5. Meaning of symmetric and non-symmetric figures.</li> <li>6. Figures and lines of symmetry.</li> <li>7. The number of folding symmetry in different shapes.</li> </ol> | -Practical lesson<br>- Discussion   | Learners will do Exercise C4  | Pairs of scissors, sheets of rectangular paper. | A new Mk Math page 184-185 |  |
| 9  | 10    | GEOMETRY | LINES                                | CIRCLES                        | Problem solving.                       | <b>The leaner:</b> <ol style="list-style-type: none"> <li>1. Defines a circle.</li> <li>2. Names parts of the circle.</li> <li>3. Identifies the types of a circle.</li> </ol>  | <b>The leaner:</b> <ol style="list-style-type: none"> <li>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.</li> <li>2. Spells the vocabularies correctly.</li> </ol> | <u>A CIRCLE</u> <ol style="list-style-type: none"> <li>3. Definition of a circle.</li> <li>4. Naming parts of a circle.</li> <li>5. Identifying the parts of a circle.</li> </ol>   | -Guided discussion                  | Learners will write some information about the Circle in their notes. | Chalk board illustration                        | A new Mk Math page 186     |  |
| 10 | 1 & 2 | GEOMETRY | FINDING RADIUS WHEN DIMETER IS GIVEN | RADIUS WHEN DIAMETER IS GIVEN. | Critical thinking and problem solving. | <b>The leaner:</b> <ol style="list-style-type: none"> <li>1. Defines radius.</li> <li>2. Identifies radius on a circle.</li> <li>3. Calculates the radius of a circle when diameter is given.</li> </ol>  | <b>The leaner:</b> <ol style="list-style-type: none"> <li>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.</li> <li>2. Spells the vocabularies correctly.</li> </ol> | <u>FINDING RADIUS WHEN DIAMETER IS GIVEN</u><br>Definition of radius.<br><br><u>Example</u><br>Calculating the radius of a circle when diameter given is 8cm.<br><br>$\text{Radius} = \frac{\text{Diameter}}{2}$ $= \frac{8\text{cm}}{2}$ $\text{Radius} = 4\text{cm}$              | -Guided discussion<br>- observation | Learners will do Exercise C5  | Chalk board illustration                        | Understanding mtc pg 184   |  |

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| 10 | 3     | GEOMETRY | FIND DIAMETER WHEN RADIUS IS GIVEN |                           | Problem solving. | <b>The learner:</b><br>1. States the relationship between the radius and the diameter.<br>2. Calculates the radius of a circle when diameter is given.<br>3. Applies the right units for the answer. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>FINDING DIAMETER WHEN RADIUS IS GIVEN</b><br>3. Definition of diameter.<br>4. Identifying diameter from a circle.<br>5. The relationship between the diameter and the radius.<br><u>Example</u><br>Calculating the diameter of a circle when radius given is 13cm.<br><br>Diameter = $2r$<br>$= 2 \times r$<br>$= 2 \times 13\text{cm}$<br><u>Diameter = 26cm</u> | -Guided discussion<br>- observation | Learners will do Exercise C6       | Chalk board illustration                                     | Understanding mtc pg 185   |  |
| 10 | 4 & 5 | GEOMETRY | CIRCLES                            | CONSTRUCTING CIRCLES      | Drawing          | <b>The learner:</b><br>1. Constructs a circle when radius is given.<br>2. Constructs a circle when diameter is given.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>CONSTRUCTING A CIRCLE</b><br>6. Constructing a circle when radius is given.<br>7. Constructing a circle when diameter is given.   | Demonstration Observation           | Learners will do Exercise C7& C8   | - ruler<br>- pair of compasses<br>chalk board illustration   | A new Mk Math page 186     |  |
| 10 | 6     | GEOMETRY | EQUILATERALS                       | CONSTRUCTING EQUILATERALS | Drawing          | <b>The learner:</b><br>1. Constructs an equilateral triangle using a ruler and a pair of compasses.<br>2. Constructs an equilateral triangle in a circle.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>CONSTRUCTING EQUILATERAL TRIANGLE</b><br>4. Constructing equilateral triangles using a ruler and pair of compasses only.<br>5. Constructing an equilateral triangle in a circle.  | Demonstration Observation           | Learners will do Exercise C9 & C10 | - ruler<br>- pair of compasses<br>- chalk board illustration | A new Mk Math page 186-189 |  |



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| 10 | 7<br>&<br>8 | GEOMETRY | HEXAGON | A REGULAR HEXAGON | Critical thinking and problem solving  | <b>The learner:</b><br>1. Constructs a regular hexagon in a circle.<br>2. Carries out accurate measurement.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>A REGULAR HEXAGON IN A CIRCLE</b><br>Constructing a regular hexagon in a circle   | Demonstration<br>Observation | Learners will do Exercise C11 | - ruler<br>- pair of compasses<br>chalk board illustration | A new Mk Math page 188     |  |
| 10 | 9           | GEOMETRY | ANGLES  | TYPES OF ANGLES   | Critical thinking and problem solving. | <b>The learner:</b><br>1. Defines an angle.<br>2. Describes the relation and revolution.<br>3. Relates angles made to each turn.   | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>ANGLES.</b><br>3. Definition of an angle.<br>4. Description of a rotation and revolution.<br>5. Demonstration of rotation and revolution.   | Demonstration<br>Observation | Learners will do Exercise C12 | Chalk board illustration. Body movements                   | A new Mk Math page 189-190 |  |
| 10 | 10          | GEOMETRY | COMPASS | DIRECTION         | Critical thinking and problem solving. | <b>The learner:</b><br>1. Names parts of a compass.<br>2. Estimate angles between two given directions.<br>3. Establishes small and big angles between two given directions. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>COMPASS DIRECTION</b><br>3. Naming parts of a compass.<br>4. Estimating angles between two given directions.<br>5. Establishing smaller and bigger angles between two given directions. | Demonstration<br>Observation | Learners will do Exercise C13 | -Chart showing compass direction.                          | A new Mk Math page 191-192 |  |

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| 11 | 1 | GEOMETRY | COMPASS DIRECTION | TURNS                          | Critical thinking and problem solving. | <b>The learner:</b><br>1. Finds angles made on a compass direction on making a turn.<br>2. Finds direction made on a compass from an angle of turn. | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b><u>CLOCKWISE AND ANTICLOCKWISE TURNS</u></b><br>1. Finding angles made on a compass direction on making a turn.<br>2. Finding directions made on a compass direction from an angle of turn.                                | Demonstration<br>Observation  | Learners will do Exercise C14 | Chalk board illustration. Body movements | A new Mk Math page 192     |  |
| 11 | 2 | GEOMETRY | ANGLES            | TYPES OF ANGLES                | Problem solving.                       | <b>The learner:</b><br>1. Names types of angles.<br>2. Describes each type of angles.<br>3. Draw each type of angles.                               | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b><u>TYPES OF ANGLES</u></b><br>4. Naming types of angles.<br>5. Describing each type of angle.<br>6. Drawing each type of angle.<br>7. Identifying each type of angle.  | Demonstration<br>Observation  | Learners will do Exercise C15 | Chalk board illustration                 | A new Mk Math page 193     |  |
| 11 | 3 | GEOMETRY | ANGLES            | MEASURING ANGLES USING A SCALE | Problem solving.                       | <b>The learner:</b><br>1. Names the two types of scales.<br>2. States when each scale is used.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b><u>MEASURING ANGLES USING A PROTRACTOR.</u></b><br>4. The inner and outer scale of a protractor.<br>5. When the outer scale is used.<br>6. When the inner scale is used.<br>7. Using a protractor to measure given angles. | - Discussion<br>- Observation | Learners will do Exercise C16 | - Protractor<br>- Pencil                 | A new Mk Math page 194-196 |  |

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| 11 | 4 | GEOMETRY | ANGLES | CONSTRUCTING ANGLES              | Problem solving                        | <b>The learner:</b><br>1. Constructs angles using a protractor.<br>2. Labels and name the constructed angles.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>CONSTRUCTING ANGLES.</b><br>Constructing angles using a protractor.   | Discussion<br>- Observation   | Learners will do Exercise C17 | - Protractor<br>- Ruler<br>- Pencil | A new Mk Math page 197 |  |
| 11 | 5 | GEOMETRY | ANGLES | MEASURING ANGLES                 | Problem solving.                       | <b>The learner:</b><br>1. Measures angles on a straight line using a protractor.<br>2. Uses inner and outer scale of a protractor to measure angles on both sides of a straight line | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>MEASURING ANGLES</b><br>5. Measuring angles on a straight line using a protractor.<br>6. Use of the inner and outer scales.   | - Discussion<br>- Observation | Learners will do Exercise C18 | Protractor                          | A new Mk Math page 198 |  |
| 11 | 6 | GEOMETRY | ANGLES | FINDING ANGLES MARKED BY LETTERS | Critical thinking and problem solving. | <b>The learner:</b><br>1. Finds the value of the unknown angles.<br>2. Collects like terms.  | <b>The learner:</b><br>1. Reads the involved vocabularies in the lesson correctly in correct intonation and pronunciation.<br>2. Spells the vocabularies correctly. | <b>FINDING ANGLES MARKED BY LETTERS</b><br>Example<br><br>$m + 45^\circ = 180^\circ \text{ (supl. Angles)}$ $m + 45^\circ - 45^\circ = 180^\circ - 45^\circ$ $\underline{m = 135^\circ}$ | Discussion<br>Observation     | Learners will do Exercise C19 | Chalk board illustration            | A new Mk Math page 200 |  |