**SCHEME OF WORK FOR P.4 MATHEATICS TERM I**

|  |  |  |  |  |  |  |  |  |  |  |  |
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| **WK** | **PD** | **THEME** | **SUB THEME** | **CONTENT** | **SUBJECT COMPETECIES** | **LANGUAGE COMPETENCIES** | **METHODS** | **LIFE SKILL** | **T/L AIDS** | **T/L ACTS** | **REF** |
| 1 | 1 | **S**  **E**  **T**  **C**  **O**  **N**  **C**  **E**  **P**  **T** | Revision of sets | - Revision of sets; Definition of: -  (a) Set  (b) Elements  - Naming sets  - Counting number  members in a set  listing elements of a set | * Group objects of a set. * Draws objects. * Identifies sets. * Listing of members in a set | * Defines a set. * Names of types of sets. | Guided discussion  Demonstration  Illustration  Explanation | * Critical thinking * Effective communication. * Creative thinking. | Real objects coins, tins, pens, books, charts etc. | -Grouping  -Drawing  -Counting  -Oral discussion | A new MK primary MTC book 4 pg 1. |
|  | Types of sets | **Types of sets**   * Equal sets and   equivalent sets.   * Empty sets. * Equivalent and   non equivalent   * Even and odd   sets | * States examples of different types of sets. * Identifies types of sets. | * Defines the types of sets. * Names the different types of sets. * Give oral examples of empty sets | Demonstration  Explanation | * Creative thinking. * Effective communication * Critical thinking | * Real objects * A chart | -Matching  - Drawing  -Naming sets  -Listing members. | New MK primary MTC book 4 pg 1-5 |
| 2 | Intersection of sets | * Symbol for intersection. * Drawing venn diagrams and shading. * Listing members in the intersection. * Number of elements in the intersection set. | * Writes the symbol for intersection. * Draws venn diagrams. * Shades the intersection. * Lists members. | * Defines intersection sets. * Describes the shaded part. | Illustration  Demonstration  Guided discussion. | Creative thinking  Logical thinking | Real objects.  A chart showing intersection part. | -Drawing and shading.  - Listing members in the intersection. | MK primary MTC book 4 pg9 - 11 |
| 2 | 1 | Union and intersection of sets | * Symbol for union. * Drawing, shading and listing of members in the union set. * Number of elements in the union set. | * Writes the symbols for unionsets . * Draws venn diagrams. * Shades the union set. * Lists members in theunion set. | * Defines a union set. * Describes the shaded regions. | -Think pair share.  -Guided discussion.  -Demonstration | * Decision making. * Effective communication * creativity | * Real objects * A chart | * Drawing and shading. * Listing members in the union | MK Pri MTC bk. 4 pg. 13 - 15 |
| 2 | 1 | **S**  **E**  **T**  **S**  **C**  **O**  **N**  **C**  **E**  **P**  **T** | Difference of sets | Inpterprete symbols and find   1. A - B   (ii) B - A  (iii) n(A-B)  (iv) n(B-A) | * Interprets the concept of the difference of sets. * Shades the regions. * Draws the regions. | * Counts the numbers of members in; A – B   B - A   * Describes the shaded parts. | * Guided discussion * Demonstration * Discovery * Illustration | * Effective communication. * Critical thinking. * Creativity | * Real objects. * A chart | * Drawing * Shading * Listing * Counting | New MK primary MTC book 4 page 13-15 |
|  |  | Sub sets | * Number of members in a set. * Listing members in a set. * Listing subsets in a set. | * Lists members in a set. * Writes the symbol of subject. * Lists the subsets in a set. | * Defines a subset. * Counts the number of subsets. | * Guided discussion. * Demonstration. * Discovery. | * Creativity. * Effective communication. * Critical thinking. | * Real objects * A chart | * Listing * Drawing * Counting | New MK Primary MTC  bk 4 pg. 21 |
|  |  | NUMBERATION SYSTEM AND PLACE VALUE | Place values | Reading and counting numbers  Place values.   1. In words. 2. In figures.   Example  4 5 6 3  Thousands  Hundreds  Tens  Ones | * Identifies the place values. * Writes the place values. | * Read the place values in words and in figures. * Counts in tens from 10-200 * Names place values from ones to tens thousands | * Guided discussion. * Group illustration. | * Creative thinking. * Effective communication. * Decision making. | * Abacus * Place value chart. | * Identifying place values. * Writing place values. | New MK Primary MTC book 4 pg 19 – 20. |
|  |  | Place values of digits in numbers. | Values of digits in numbers.  Example 1  What is the value of each in the number  7 4 6 3 2  Tth Th H TO  (2x1)=2  (3x10)=30  (6x100)=600  (7x10,000)=70,000  (4x1000)=4000 | * Identifies the place values of digits. * Writes the place values on each digit. * Multiplies digits by their place values. * Writes the values. | * Reading values in words. | * Guided discovery * Demonstration. * Illustration. | * Creative thinking. * Effective communication. * Discussion making. | * Place value chart. * Abacus. | * Identifying place values. * Multiplying of digits by P.V. * Writing values. | New MK Primary MTC Bk 4 pag 21. |
|  |  | N  U  M  B  E  R  A  T  I  O  N  S  Y  S  T  E  M  A  N  D  P  L  A  C  E  V  A  L  U  E | Expanding of numbers | Expanding of numbers   * Using place values * Using values. | * Identifies place value. * Writes the values. * Writes in expanded form. | * Reads the place values. * Reads the values. | * Illustration. * Discovery * Group work | * Effective communication. * Logical thinking * Decision making | * A place value chart. | -Identifying values.  -Writing values.  -Expanding numbers. | New MK primary MTC bk 4 pg 21. |
| 3 | 1 | Expanded numbers | What number has been expanded (7 x 1000) +(4 x 100 + (3x10) + (8 x 1) | * Multiplies the numbers correctly. * Adds the numbers. * Identifies the expanded number. | * Reads the figures. * Reads the expanded number. | * Guided discovery. * Group work. * Illustration. | * Effective communication. * Logical reasoning. | * Place value chart. | -Multiplying  -Adding  -Identifying | New MK primary MTC book 4 pg 24 |
|  | 2 | Writing words in figures and vice versa | * Writing figures in words. * Writing words in figures. | * Writes figures in words. * Writes words in figures. | * Reads figures correctly. * Reads words correctly. | * Explanation * Guided discovery * Discussion. | * Effective communication. * Creative thinking. * Logical reasoning. | * Place value chart. | -Writing  -Reading  -Arranging digits. | New MK primary MTC bk 4 pgs. 22-23 |
|  |  | Rounding off of whole numbers | * Rounding off to the nearest tens. * Rounding off to the nearest hundreds. * Rounding off to the nearest thousands. | * Mentions the meaning of approximate. * Rounds off numbers to the nearest tens / hundreds. | * Mentions the meaning of approximate. * Reads the number given. | * Discovery * Discussion * Illustration | * Logical thinking. * Critical thinking. * Effective communication. | * Place value chart. | -Rounding off to the nearest tens / hundreds. | New MK primary MTC bk 5 pages 54 - 55 |
|  | 3 | Roman numerals | * Basic roman numerals. * Roman numerals got by repeating x, c * Roman numerals got by adding subtracting. | * Identifies roman numerals. * Adds the Roman numerals. * Subtracts the Roman numerals. | * Recites the roman numerals. * Mentions the Roman numerals obtained. | * Explanation * Discussion * Discovery. | * Creative thinking. * Problem solving. * Logical thinking. | * Chart showing Roman numerals. | -Reciting the Roman numerals. | New MK Primary MTC bk 4 pg 33 |
|  | 4 |  | Roman numerals | * Changing from Hindu Arabic numerals to Roman numerals. * Changing from Roman numerals to Hindu Arabic numerals. * Word problems about Roman and Hindu Arabic numerals. | * Writes the Hindu Arabic numerals in Roman numerals. * Writes the Hindu Arabic numerals correctly. * Writes the Roman numerals in Hindu Arabic. | * Recites the Roman numerals. * Reads the statements given correctly. | * Explanation * Discussion * Discovery. | * Creative thinking. * Problem solving. * Logical thinking. | * Chart showing Roman numerals. | -Writing the Roman numerals.  -Reading the statement given. | New MK Primary MTC bk 4 pg. 34-35. |
|  |  | * Addition and subtraction of roman numerals. | * Adds Roman numerals. * Subtracts roman numerals. | * Reads the given word problem. * Recites the Roman numerals. | * Guided discussion * Illustration * Discovery. | * Problem solving. * Creative thinking. * Logical thinking. | -Adding roman numerals.  Subtracting roman numerals. | New MK Pri MTC bk 4 page 35 Oxford pribk 4 page 67. |
| 4 | 2 | OPERATION ON WHOLENUMBERS | Adding up to ten thousand | Addition   * Without word problems. * With word problems. | * Adds numbers without word problem correctly. * Adds numbers with word problems correctly. | * Reads numbers in words. * Interprets the word problem given. | * Explanation. * Guided discussion. * Guided discovery. | * Problem solving. * Logical thinking. * Creative thinking. * Effective communication | * Flash cards showing numbers for addition. | Adding numbers.  Reading the word problem. | New MK MTC Bk. 4 pages 38 - 41 |
|  |  | Subtracting up to ten thousand | * Subtraction. * Without re-grouping. * With re-grouping. | * Subtracts numbers without regrouping. * Subtracts numbers with regrouping. | * Reads the numbers in words correctly. * Uses the new words to make correct sentences | * Explanation. * Guided discovery. * Guided discussion. | * Flash cards showing numbers for subtraction * Using abacus | Subtracting numbers with or without regrouping. | New MK primary MTC bk pages 42 – 43. |
| 5 | 2 | O  P  E  R  A  T  I  O  N  O  N  N  U  M  B  E  R  S | Subtracting up to ten thousand | * Subtraction with regrouping. | * Subtracts numbers with regrouping. * Arranges numbers according to their correct place values. | * Reads the numbers given in words. * Arranges numbers according to their correct. | * Explanation. * Guided discovery. * Guided discussion | * Problem solving. * Logical thinking. * Creative thinking. | * Flash cards showing numbers for subtraction | Subtracting with regrouping. | New MK primary MTC bk 4 pg 43 - 44 |
| 3 | Multiplication | **Multiplication**   * Multiplication as repeated addition. * By multiples of ten 90, 80. 70 … * Three digit figures by one digit. * Two digit figures by 2 digits. * Multiplication on word problems. | * Multiplies given problem. * Identifies the multiples of ten. | * Reads the word problem. * Recites the multiples of ten. * Uses correct mathematical terms for multiplication e.g 2 multiplied by 3 | * Explanation. Discussion * Discovery. * Rote method | * Creative thinking. * Logical thinking. * Problem solving. | * Counters. * Multiplication table. | Multiplying numbers | New MK primary MTC bk 4 pages 46 - 51 |
| 6 |  | Division | * Division as repeated subtraction. * Without remainders. | * Divides numbers using repeated subtraction. * Divides numbers using long division methods | * Counts the number of times a number has been subtracted | * Counters | Counting numbers that have been divided. | New MK primary mathsBk 4 pages 52 - 55 |
|  | * Division by one digit number * Division with remainders. * Division by 10s * Word problems. | * Divides numbers using long division methods. | * Recites the multiplication table. * Reads the word problems. | * Discussion. * Guided discovery. * Demonstration. | -Dividing numbers using long division.  -Multiplying.  Subtracting | New MK Primary MTC Bk 4 pages 53 – 55. |
|  |  |  | Average | * Average without word problem. * With word problem. | * Solves the number given. * Adds numbers. * Divides the number correctly. | * Reads the number or digits given. * Reads the statement given. | * Explanation. * Guided discussion. * Discovery. | * Problem solving. * Critical thinking. * Discussion making. | * Counters in bundles. | Finding the average. | New MK Pr. MTC bk5 pg. 76 - 77 |
|  |  | P  A  T  T  E  R  N  S  A  N  D  S  E  Q  U  E  N  C  E  S | Types of numbers | Types of numbers   * Counting numbers. * Whole numbers. * Even numbers * Odd numbers. | * Identifies the types of numbers. * Finds the missing numbers. | * Recites the numbers. * Counts numbers correctly. | * Explanation. * Guided discussion. * Discovery. | * Problem solving. * Critical thinking. * Discussion making. | * Chart showing examples of the types of numbers. | Giving types of numbers. | New MK primary MTC bk 4 pg. 61. |
|  |  | Number sequences | Number sequences   * By adding numbers like 2, 4, 6, … * By subtracting numbers like 6, 4, 2…… | * Identifies the next numbers by adding. * Identifies the next number by subtracting. | * Counts numbers. * Mentions the next number in the sequence. | * Chart showing number sequences. | Finding the next number in the sequences. | New MK Pr. MTC bk4 pages 61 – 62 |
| 7 | 1 | Number sequences   * By subtracting numbers like 6, 4, 2. * Find missing numbers in a sequence | * Identifies the next number in the sequence by subtracting. | * Counts numbers. * Mentions the next number in the sequences | * Explanation * Discussion * -Guided discovery | * Problem solving. * Logical thinking. * Creative thinking | * Chart showing number sequences | Finding the next number in the sequences | New MK. Pr. MTC bk 4 pg. 62-63 |
| 4 | Multiples | **Multiples**   * Listing multiples of given numbers. * Common multiples. * Lowest common multiples. * Counting in tens, hundreds and thousands. * Multiplying by 10, 100 and 1000. * Multiplying by multiples of 10. * Factors of numbers * GCF if numbers * Completing tables | * Finds the multiples of various numbers. * Lists the common multiples. * Multiples various numbers like 10, 100, 1000 | * Defines multiples. * Mentions the multiples of various numbers. * Counts in tens, hundreds and thousands. | Finding the multiples. | New MK Pr. MTC bk 4 pg 64 - 71 |
| 7 | 4 | Number facts and sequences | Magic square. | * Magic square | * Completes the magic square | * Find the value of the missing numbers | * Chart showing magic square. | Finding the missing numbers in the magic square. | Old MK Pr. MTC bk 4 pg. 72-73 Understanding MTC bk 4 pg 88. |

**TOPICAL BREAKDOWN FOR P.4 MATHEMATICS TERM I**

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| **THEME** | **TOPIC** | **SUB-TOPIC** | **DURATION** | **OUT COMES** |
| SETS | SET CONCEPT | * Types of sets . Empty * Equal * Equivalent * Forming sets * Listing members in sets * Finding number of members * Finding common members. * Union of sets * Shading and describing shaded regions. * Representing information on the venn diagram * Interpreting information on the venn diagram | 1 ½  (1 – 2) | * The learner is able to demonstrate the knowledge of sets to the problems in real life situations. |
| NUMERACY | WHOLE NUMBERS | * Place values of numbers up to 99. 999 * Values of numbers * Sum and difference of values of digits. * Expanding whole numbers using place values and values * Finding the expanded number * Writing in words * Writing in figures * Round off to the nearest tens, hundreds and thousands * Roman numerals up to 100 * Application of Roman numerals. * Hindu Arabic numerals | 2 wks  (3- 4) | * The learner is able to appreciate the need to count in everyday life . |
|  | OPERATION ON WHOLE NUMBERS | * Addition of whole numbers up to 99999 with and without neigbouring * Word problem about addition * Subtraction of whole numbers up to 99999 with and without regrouping. * Word problem on subtraction * Multiplication as repeated addition. * Multiplication of whole numbers up to 3 digital distributed by 1and 2 | 3 weeks  (5 – 7) | * The learner is able to use the four basic operations to solve problems. |
|  |  | * World problem on multiplication. * Division as repeated subtractions. * Division of whole numbers by 1 digit numbers.   without a remainder  With a remainder   * Division on word problems * Division of whole numbers by 10 * Average * Word problem involving division; |  |  |
|  | PATTERNS AND SEQUENCE | * Types of numbers (even and odd) * Finding sum, product and difference of numbers /even and odd. * Sequence of numbers. * Increasing progression * (addition and multiplication) * Decreasing progression * (Subtraction) | 2 weeks  (8 – 9) | * The learner is able to able to relate and apply simple computation skills involving patterns and sequences in real life situation |
|  |  | * Multiples of numbers * LCM * Multiples of 10, 100, and 1000 * Factors of numbers. * Finding GCF of numbers. * Completing tables (wheels) * Magic squares |  |  |

**SCHEME OF WORK FOR P.4 MATHEATICS TERM II**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WK** | **PD** | **THEME** | **SUB THEME** | **CONTENT** | **SUBJECT COMPETECIES** | **LANGUAGE COMPETENCIES** | **METHODS** | **LIFE SKILL** | **T/L AIDS** | **T/L ACTS** | **REF** |
|  | | **F**  **R**  **A**  **C**  **T**  **I**  **O**  **N**  **S** | Revision | Fractions (Lower work)   * Definition. * Shading / Naming fractions. * Writing fractions in words and figures. * Types of fractions. | * Defines fractions. * Shades the given fractions * Gives examples of fractions. | * Defines fractions. * Names the types of fractions. | * Explanation * Demonstration. * Guided discovery | * Effective communication. * Creativity. | * Real objects e.g. oranges, apples papers. | Collecting objects.  Shading  Naming. | MK Bk.3 pg. 94 – 98.  A new MK Bk 4 pg. 80 - 86 |
| Fractions | * Equivalent   fractions.   * How to get   equivalent.   * Finding missing   parts of  fractions.   * Reduce fractions of atleast one factor * Comparing   Fractions.   * Ordering simple   fractions. | * Multiples and dives. * Compares fractions. * Reduces fractions to lowest term. * Identifying simple equivalent fractions using diagrams | * Describes and names equivalent fractions. * Writes equivalent fractions. | * Group discussion. * Question and answer. | * Problem solving. * Effective communication. * Critical thinking. | * Flash cards. * Charts   showing  fractions | Cutting  Shading | MK primary MTC bk 4 pg 82 - 86 |
| Operations on fractions | **Addition of fractions**   * With same denominators. * With different denominators.   **Subtraction of fractions**   * With same denominators. * With different denominators. | * Adds fractions with same and different denominators. * Subtracts fractions with same and different denominators. | * Reads fractions given | * Demonstration. * Illustration. * Group discussion. | * Effective communication. * Critical thinking * Creativity. | * Pupils chart showing fractions. | * Cutting. * Grouping * Reading | New MK Bk 4 Pg. 87-97. |
|  |  | **F**  **R**  **A**  **C**  **T**  **I**  **O**  **N**  **S** |  | **Writing mixed as**  **proper fraction**   * Changing improper fractions to mixed numbers.   **Addition of mixed numbers**   * With same denominators only   **Subtraction of mixed numbers.**   * With same denominators only   **Fractions of a group**   * What is ½ of 6? * Find the remaining fractions. * Multiplication of fractions. | * Changes mixed   numbers to improper fractions.   * Adds and subtracts mixed fractions. * Uses fractions of a group to apply in given numbers. | * Reads   fractions.   * Defines the type of fractions. | * Demonstration   on.   * Guided discovery. * Explanation. | * Creativity. * Logical reasoning. | * Real   objects  like text books. | * Cutting * Grouping * Reading | New  MK Bk. 4 Pg. 87 - 97 |
| 2 | 1 | Decimals | **Decimal fractions**   * Writing decmals   -in words  -in figures upto tenths   * Expressing fractions as decimals upto thenths * Expressing decimals as fractions up to thenths * Place values of decimals upto tenths * Tenths * Addition on decimals | * Write decimals in words and figuresupto tenths. * Express decimals as common fractions up to tenths. * Add decimal using a number line. * Order fractions from big to small and vice versa. * Subtract decimal fractionsupto tenths. | * Uses the word decimals in problems “point” | * Guided discovery. * Think pair share. * Demonstration. * Illustration. | * Effective communication. * Creative thinking. * Problem solving. | * Abacus. * Flash cards. | * Collecting objects like bottle tops. * Cutting. | New MK primary MTC book 4 pages 98 - 111 |
|  |  |  |  | Ordering decimals. | * Interpret word problems. |  |  |  |  |  |  |
|  |  | 2-  D  I  M  E  N  S  I  O  N  A  L  G  E  O  M  E  T  R  Y | Identifying 2 – dimensional figures | **Plane shapes**  Examples:   * Rectangles. * Circle * Rhombus * Oval * Square * Kite * Trapezium * Triangle * Paralleogram * Rhombus | 1. Identifies plane shapes. 2. Draws given shapes. 3. Writes the properties of shapes. | * Describes and names shapes of 2 – dimensional figures. * States the properties of the shapes. | * Demonstration. * Explanation * Discussion. | * Effective communication. * Logical reasoning. * Creativity | * Objects with such shapes e.g. balls, baskets, cups, eggs etc. | * Identifying * Drawing * shaping | New MK Bk. 4 pg. 125.  MK pupils Bk. 3 pg. 126 |
|  |  | Drawing ling segments  End point | Drawing and measuring line segments.  5cm  Example.  End point | * Draws line segments. * Measures line segments | * Uses the word “segment” * Make correct sentences | * Illustration. * Demonstration. * Explanation | * Logical reasoning. * Creativity. * Effective communication. | * Dividers. * Pencil. * Rules etc | * Drawing * Measuring | A new MK Bk. 4 Pg. 142. |
|  |  | Drawing and measuring angles | * Drawing angles using a protractor. * Measuring ∠s using a protractor e.g. 500, 300, 600, 900 not exceeding 900 | * Draws angles using a protractor. * Measuring angles using a protractor. | * Uses the word “Protractor” * “Angles” etc | * Demonstration. * Guided discovery. * Explanation. * Illustration | * Effective communication. * Logical reasoning. * Accuracy. | * Rulers. * Protractor * Dividers. | * Drawing. * Measuring. | New Mk Bk 4 Pg. 143. |
| 3 | 1 | Constructing squares, rectangle and equilateral triangles | 1. Constructing squares 2. Rectangles using a protractor when given sides. | * Constructs squares, rectangles, using a protractor. | * Describes * Identifies and names the instruments for construction | * Demonstration. * Explanation | * Effective communication. * Critical thinking. * Logical reasoning. | * Protractors. * Dividers * Rulers * Pencils * Pair of compass | * Drawing * Constructing. * Measuring. |  |
|  |  | 2-  D  I  M  E  N  S  I  O  N  A  L  G  E  O  M  E  T  R  Y |  | 1. Constructing equilateral triangles when given sides using a pair of compasses only. | * Constructs equilateral triangles using a pair of compasses only when given sides. | Identifies and names the instruments used for construction | Demonstration  Explanation | Critical thinking  Logical reasoning | Protractor  Dividers  Ruler  Pencil  Pair of compasses | Drawing  Constructing  Measuring |  |
|  |  | Right angles | * Drawing and recognising right angles. | * Recognizes right angles. * Draws right angles using a protractor only. | * Points out and names right angles in the class room and in the play ground. | * Explanation. * Illustration. * Guided discovery. | * Logical reasoning. * Creative thinking. * Effective communication. | * Protractors. * Dividers. * Rulers * Pair of compasses. | -Drawing.  -Identifying  -Constructing.  -Measure. | New MK pupils bk 4 Pg. 144. |
|  |  | Perimeter | 1. Finding perimeter when given sides e.g  * Squares * Rectangles * Triangles. | * Finds perimeter of squares, rectangles and triangles when given sides. | * Explains the meaning of perimeter. * Illustrates perimeter of figures in exercise books. | * Illustration. * Demonstration * Explanation. | * Critical thinking. * Effective communication. * Logical thinking. | * Cuts of squares, rectangles and triangle. | * Drawing shapes. * Finding missing side. | New MK Bk 4 Pg. 204 |
|  | 4 | Area | * Finding area of square * Finding area of a rectangle | * Finds area by both counting and using formular * . | * Explains the meaning of area. * Finds the area. | * Explanation * Demonstration. * Guided discovery. | * Critical thinking. * Problem solving. * Effective communication. | * Cuts outs of shapes like squares, rectangles. | Drawing shapes.  Identifying sides.  Finding area. | New MK Bk 4 Pg. 209 |
|  |  | 2-  D  I  M  E  N  S  I  O  N  A  L  G  E  O  M  E  T  R  Y | Circles | **Making circles**   * Using hard paper. * Using strings. * Using the big toe. * Using a pair of compasses. | * Makes circles using hard papers and toes. * Uses a pair of compasses to draw circles. | * Identifies names and uses both strings and hard papers to make circles. | * Demonstration. * Explanation. * Discussion | * Critical thinking. * Problem solving. * Creativity. | * Strings. * Hard papers. | Making and drawing circles. | New MK Bk. 4 Pg. 134. |
|  |  | Parts of a circle | Naming parts of a circle.  Example.   * Diameter * Radius * Chord * Circumference | 1. Names the parts of a circle. | * Identifies names and uses the words like   radius  Diameter | * Explanation. * Illustration * Demonstration * Guided discovery. | * Logical reasoning. * Creativity. * Effective communication | * Cutouts. * Chart showing parts of a circle. | * Identifying. * Drawing * Naming parts. | New MK Bk 4 Pg. 135. |
|  |  | Diameter and radius | 1. Finding diameter when given radius. 2. Finding radius when given diameter. | * Finds diameter. * Measures diameter. * Finds radius * Measures radius. | * Explains and uses / relates polygons as used in our daily life. | * Explanation. * Discussion. * Question and answer. | * Logical reasoning. * Critical thinking. * Creativity. | * Real objects. * Cut outs. * Strings * Rulers. | * Relating parts of a circle. * Finding length of diameter and radius. | Mk Bk. 4 Pg. 139-140 |
|  | Polygons | * Drawing and naming some   polygons   * Triangles * Square * Rectangle * Pentagon – five sides. * Hexagon – Six sides. | * Identify and names the polygons. | * Explains and uses / relates polygons as used in our daily life. | * Explanation. * Discussion. * Question and answer. | * Logical reasoning. * Creativity. * Effective communication. | * Cut outs. * Real objects etc. | -Identifying.  -Naming  reading | repertoire |
|  |  | 3 –  D  I  M  E  N  S  I  O  N  A  L  F  I  G  U  R  E  S  /  G  E  O  M  E  T  R  Y | 3-dimensional geometry  Identification. | Identifying and naming 3 – dimensional figures.  Example   * Cone * Cylinder * Cube * Cuboid * Triangular pyramid etc. | * Identifying 3 – dimensional figures. * Naming 3-dimensional figure. * Drawing 3 – dimensional figures. | * Names and indentifies common solids in English and mother tongues. | * Explanation. * Illustration * Discovery. * Question and answer. | * Creative thinking. * Logical reasoning. * Effective communication. | * Models. * Cutouts. * Real objects of such shapes. | Drawing and naming. | New Mk Bk 4 Pg. 128. |
|  |  | Naming parts of the solid shapes. | Parts of solid shapes.  Example   1. Cube & cuboid   Edge  Face  Vertex   1. 6 faces 2. 8 vertices 3. 12 edges 4. Cylinder   Plane surface  Edges  Curves  surface   1. 1 curved surface 2. 2 plane surfaces 3. Area of parts of cube and cuboid 4. Volume of cubes and cuboid. | * Identifies and labels, faces, edges and vertices. * Counts the number of faces, edges and vertices. | * Identifies names and uses words like; edges, vertices and faces in our daily life. | * Explanation * Denomination * Illustration * Guided discovery | * Critical thinking. * Effective communication * Creativity. | * Models * Real objects * etc. | Drawing.  Naming  Identifying. | A New Mk Bk 4 Pg. 130. |
|  |  | 3 DIMENSIONAL GEOMETRY | Angles | **Types of angles**  P   1. Right angles   (Complementary angles of 2 angles only  x  400  X + 400 = 900  X+400-400 = 900- 400  X = 500   1. Straight angles   (Supplementary angles of 2 angles only  600  P + 600 = 1800  P+600-600=1800-600  P = 1200 | 1. Identify the different types of angles. 2. Find the complement and supplement of angles. | * Explains the meaning of complement + and supplement angles. | * Explanation. * Question and answer. * Discussion * Demonstration * Illustration | * Problem solving. * Logical reasoning. * Effective communication | * Cut outs. * Text books * Illustration * Chalkboard | * Identifying angles * Finding missing numbers | New MK primary MTC bk 4 pg. |
|  |  | DATA HANDLING | Tallies | Interpretation and drawing of picto graphs, bar graphs and line graphs | * Uses tally marks to collect and group data. * Organizes data. * Displays data. * Interprets data. | * Counts objects / people. * Records. * Describes graphs. * Explains graphs. | * Explanation. * Question and answer. * Illustration. * Discussion. * Demonstration. | * Effective communication. * Logical thinking. * Creative thinking. * Problem solving. | * Real objects e.g. * Straws books. * Pens * Bottle tops. | * Counts tally marks. * Growing using tallies. * Drawing * Reading * Interpreting. * Displaying * Collecting * Writing. | New MK MTC Primary Bk 5 Pg. 115 – 123.  Mk Old Edition P/S Bk 5 Pg. |

**TOPICAL BREAKDOWN FOR P.4 MATHEMATICS TERM II 2016**

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| --- | --- | --- | --- | --- |
| **THEME** | **TOPIC** | **SUB-TOPIC** | **DURATION** | **OUT COMES** |
| NUMERACY | FRACTIONS | * Types of fraction * Naming parts of a mixed fraction * Conversion of mixed to improper and vice versa * Finding equivalent fractions * Reducing fractions * Comparing fractions * (≤, ≥ or =). * Operation on proper fraction * (Subtraction and addition only) * Operation on mixed fractions (addition and subtraction) * Word problem involving addition and subtraction of fraction. * Addition on different denominators * Subtraction of different denominators * Multiplication of fractions * Application of fractions * Decimal fractions. * From common to decimal and vice versa. * Place values of decimals * Addition on decimals * Subtraction on decimals * Arranging decimals | 2 weeks | The learner is able to solve problems involving fraction and relating them to real life situation |
| MEASURES | DIMENSIONAL GEOMETRY | * Identifying and naming two dimensional figures * Matching of pictures of figures to their names. * Drawing two dimensional figures (triangle, square, rectangle) * Drawing line and measuring line segments * Drawing and measuring angles. * Identifying right angles * Constructing 900 * Constructing a square * Constructing a rectangle * Constructing an equilateral triangle | 4 weeks | The learner is able to recognize and construct various geometric figures and relate them to other fields such as architectural drawings. |
|  |  | * 3. Dimension * Naming solid shapes * Identifying properties of three dimensional figures (cube, cuboid, cylinder) * Marking and drawing 3 dimensional figures * Finding volume of a cube and cuboid. * Angles of a triangle * Right and straight angles. |  |  |
| Interpretation of graphs and data | Data handling | * Counting and representing numbers using tally marks. * Drawing picto graphs * Interpreting picto graphs, * Recording information using tally marks * Reading, drawing and interpreting tables * Drawing and interpreting bar and line graphs | 1 ½ weeks | The learner is able to interpret and draw and solve problems involving graphs |
| Measurements | Money | * Recognition of notes * Currency * Addition of money * Completing shopping bills tables * Finding profits and losses * Costs and prices | 1 ½ weeks | The learner is able to solve practical problems related to utilization of Uganda currency in everyday life. |

**SCHEME OF WORK FOR P.4 MATHEATICS TERM III 2016**

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| **WK** | **PD** | | **THEME** | **SUB THEME** | **CONTENT** | **SUBJECT COMPETECIES** | **LANGUAGE COMPETENCIES** | **METHODS** | **LIFE SKILL** | **T/L AIDS** | **T/L ACTS** | **REF** |
|  | |  | **M**  **E**  **A**  **S**  **U**  **R**  **E**  **S** | **Money** | * Recognition of money. * Coins * Bank notes * Change shs. to cents and vice versa. * Adition of money * Subtracting of money. * Multiplication of money. * Direct proportions. * Buying and selling shopping bills. * Division of money. * Profit and loss. * Postage rates. | * Identifies coins and notes. * Buying and selling. * Calculates simple profits and loss. * Costs and pricing. | * Describes different coins and notes. * Roles playing using money in English. * Uses examples to describe meaning of profit and loss. | * Discussion. * Explanation. * Observation. * Demonstration * Dramatization. * Role playing. | * Effective communication. * Critical thinking. * Creativity. | * Coins. * Bank notes. * Classroom shape * Real objects. * Backs pens. * Tins * Envelopes * Straws * Bottles etc | Role playing using money.  Role playing the buyer andseller.  Describing coins notes.  Giving examples of profit and loss.  Working out problems involving profits and loss. |  |
| **Time** | * Revision on time. * Telling time. * Changing hours to minutes. * Addition of time. * Word problems. * Subtraction of time. * Word problem * Time in a.m. and p.m. | * Uses different types of clocks to tell time. * Converts measures of time. | * Tells time in the local language and English. * Gives months of the year in English. | * Explanation. * Discussion * Question and answer. * Observation. * Demonstration. * Role playing. | * Effective communication. * Critical thinking. * Creative thinking. * Logical thinking. * Effective communication. | * Wall clocks. * Calendars. * Timetable. | * Using real or model clock, the learner tells time. * Making a calendar showing what month of the year. * Working | New edition MTC MK pupils Bk 4 Pg. 161 185 |
|  | |  |  |  | * Changing days to hours. * Changing hours to days. * Changing weeks to days. * Changing days to weeks. * Addition of weeks and days * Subtraction of time in weeks and days. | months to days. | timetable in his / her exercise book. |  | * Critical thinking. |  | out problems involving time.   * Reading. |  |
|  | |  | MEASUREMENTS | Capacity | * Half and quarter litres. * Addition of litres as half litres. * Addition of litres and milliliters. | * Adds litres as half litres and milliliters. | * Expresses capacity of different items | * Discussion. * Explanation. * Question and answer. | * Critical thinking. * Effective communication. * Logical reasoning. | * ½ litre containers. * 1 litre container. | * Packing * Adding. | New MK MTC MK Bk. 4 pg. 222 – 227. |
|  | |  |  | Weight and volume (mass) | * Half and quarter Kg. * Changing Kg and gm and vice versa. * Add and subtract kg and gm. * Dozens, crates, trays. * Volume of cubes and cuboids. | * Changes Kgms go gms and vice versa. * Adds and subtracts kgms and gms. | * Expresses weight and volume of different items. | * Discussion. * Explanation * Question and answer. | New MK MTC pupils Bk 4 Pg. 228 – 235 |
|  | |  | **A**  **L**  **G**  **E**  **B**  **R**  **A** | Equations with and without letters | * Revision (using letters for numbers) * Adding letters e.g. P+P = 2P   2k + 4k = 6k   * Finding perimeter using letters for numbers. * Subtracting letters. * Collecting like terms involving addition only . * Substitution.   Equation of:   * Addition * Subtraction * Division e.g.   2x = 8, x÷2 = 4   * Forming equations of addition and subtraction. | * Adds letters. * Uses letters for numbers. * Finds perimeter using letters for numbers. * Collects like terms. * Does substitution. * Solves given equations. * Forms equations and solve them. | * Reads and creates simple equations without letters. | * Guided discovery. * Participatory approach. * Discussion. * Brain storming. | * Effective communication. * Critical thinking. * Problem solving. | * Books. * Pens * Text books. | -Adding  -Subtract  -Forming equations | MK primary pupils bk 4 pg. 245-260 |

**TOPICAL BREAKDOWN FOR P.4 MATHEMATICS TERM III 2016**

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| **THEME** | **TOPIC** | **SUB-TOPIC** | **DURATION** | **OUT COMES** |
| MEASUREMENTS | TIME | * Days of the week * Conversion of days to weeks and vice versa. * Month of the year. * Converting years into months and vice versa. * Converting months to days * Telling time * Changing days to hours and vice versa * Changing hours to minutes and vice versa. * Finding duration. | 2 week  (1-3) | * The learner is able to apply the knowledge of time in real life situation. |
|  | Length  Mass  Capacity | * Measuring length (M and cm) * Finding perimeter and area of a square, rectangle and triangle. * Measuring mass * Converting mass (Kg to g and vice versa) * Measuring capacity. * Litres to milli8litres * Word problems involving capacity | 4 weeks  (8 – 9)  (3 – 7) | * The learner is able to recognize and use standard instruments and units for measuring mass, length and capacity |
| ALGEBRA | Equations | * Collecting like terms * Finding the missing numbers in (1)addition,(2)subtraction, (3)multiplication and (4)division. * Word problems on missing numbers. * Substitution. * Equations with addition * Subtraction * Multiplication * Division * Forming and solving equation. | 2 weeks  (7 – 9) | * The learner is able to solve mathematical problems and puzzles using the knowledge of Algebra. |