**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 setlisting 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 discussionDemonstrationIllustration 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.
 | IllustrationDemonstrationGuided discussion. | Creative thinkingLogical 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.

Example4 5 6 3ThousandsHundredsTensOnes | * 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 1What is the value of each in the number  7 4 6 3 2Tth 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. |
|  |  | NUMBERATIONSYSTEMANDPLACEVALUE | 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 | OPERATIONONNUMBERS | 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 |
|  |  | PATTERNS ANDSEQUENCES | 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**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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.ShadingNaming. | 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

objectslike text books. | * Cutting
* Grouping
* Reading
 | NewMK 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-DIMENSIONALGEOMETRY | 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 segmentsEnd point | Drawing and measuring line segments.5cmExample.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-DIMENSIONALGEOMETRY |  | 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 DividersRulerPencilPair of compasses | DrawingConstructing 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-DIMENSIONALGEOMETRY | 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.-Namingreading | repertoire |
|  |  | 3 –DIMENSIONALFIGURES/GEOMETRY | 3-dimensional geometryIdentification. | 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.Example1. Cube & cuboid

EdgeFaceVertex1. 6 faces
2. 8 vertices
3. 12 edges
4. Cylinder

Plane surfaceEdgesCurves surface1. 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.NamingIdentifying. | A New Mk Bk 4 Pg. 130. |
|  |  | 3 DIMENSIONAL GEOMETRY | Angles | **Types of angles** P1. Right angles

(Complementary angles of 2 angles onlyx400X + 400 = 900X+400-400 = 900- 400X = 5001. Straight angles

(Supplementary angles of 2 angles only600P + 600 = 1800P+600-600=1800-600P = 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**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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.
 |
|  | LengthMassCapacity | * 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.
 |