**P.5 MATHEMATICS SCHEME OF WORK FOR TERM I**

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| Wk | Pd | Topic | s/topic | Content | Subject competences | Language competences | Methods | Life skills | Teaching aids | Teaching act | Ref |
| 1 | 1 | Set concept | Types of sets | Definition of a set  Equivalent sets  Equal sets  Joint and disjoint sets  Matching sets  Empty sets | Defines a set  Identifies different types of sets | Names different types of sets  Pronounces  Spells and  Constructs sentences | Discussion  Demonstration  Illustration  Explanation | Critical thinking  Creative thinking  Effective communication | Real objects  Coins  Tins  Pens  Books | Drawing  Oral  Discussion  Written exercises  Collecting materials | Mk old edition pg 1 – 25  Mk new edition pg 1 – 22  Function MTC 1 – 15 |
|  |  |  | Sets and Venn diagrams  Difference of sets  Shading and describing regions  Number of elements  Sub sets | Union of sets  Intersection of sets  Representing union and intersection sets on Venn diagrams  Difference of sets (complement)  Shading regions  Describing shaded regions  Number of elements  Defining subsets  Listening subsets  Finding number of subsets  Representing subsets on a Venn diagram | Forms sets  Shades regions  Represents union and intersection on Venn diagrams  Lists sub sets  Finds number of subsets | Spells  Pronounces  Makes sentences using words like union intersection |  |  |  | Forming and drawing  Drawing venn diagrams  Identifying members of union and intersection set on the venn diagram  Drawing venn diagram and using them | P. 5 curri pg 85-86 |
| 2 | 1 to 6 |  | Probability | Place coins  Rolling a dice  Colours  Days of the week | Tosses a coin  Rolls a dice | Writes the sample space  Finds the probability |  |  |  |  |  |
| 2 | 1 to 6 | Whole numbers | Place values  Values of digits  Writing in figures and words  Forming numbers from digits | Place values of whole numbers upto millions  Values of digits up to 999999  Writing in figures and words up to 9999999  Forming numbers from digits | Identifies place values  Finds values of digits  Writes numbers in words and in figures  Forms numbers from digits | Names place values up to millions  Reads numbers in words  Writes expanded numbers in words  Reads and writes Roman numerals |  | Critical thinking  Problem solving | A chart showing place values and values of numbers | Identifying place values up tot six digits  Working out values of digits  Rounding of whole numbers  Reading and writing roman numerals  Converting Hindu Arabic numeral and vice versa | Mk old edition pg 28 – 57  Mk new edition 24 – 29  Functional MTC for Ugpg 17 – 43  Pri curri 87-88 |
| 3 | 1 to 6 |  | Expanded notation  Rounding off whole numbers  Roman numerals | Expanding numbers using values, multiples of 10 place values and powers of 10  Changing from expanded to single numbers  Rounding off whole numbers up to 10000  Roman numerals up to 1000  Roman to Hindu and vice versa | Expands six digit number  Rounds off whole  Rounds off whole numbers to ten thousands  Reads and writes Roman numbers up to 1000 |  | Guided discussion  Explanation  Illustration  Guided discovery  Group work |  |  |  |  |
| 4 | 1 to 6 | Operation on whole numbers | Addition of whole numbers  Subtraction of whole numbers  Multiplication of whole numbers  Division of whole numbers by two digit numbers | Addition of whole numbers up to six digits without regrouping  Addition with regrouping  Word problems involving addition  Subtracting upto six digits without regrouping  Subtraction with regrouping  Word problems  Involving subtraction ]  Multiplication by two digit numbers  Word problems  Involving multiplication  Dividing numbers without remainders  Dividing whole with remainders  Word problems involving division | Adds whole numbers up to 6 digits without regrouping and with regrouping  Solves word problems  Subtracts whole numbers up to 6digits solves simple word problems  Multiplies numbers up to 4 digits by 2 digit numbers  Divides whole numbers by 2 digit numbers with or without remainder | Spells the word addition  Pronounces  Spells the word addition  Use addition sentences  Uses other terms correctly for subtraction such as decrease , takeaway, minus or less than in sentences | Discussion  Explanation  Illustrate  Demonstration  Inquiry  Role paly | Critical thinking  Effective communication  Problem solving | Work  Cards  Counters  Books | Computing problems involving addition  Subtraction  Multiplication  Division  Solving simple word problems in real life situation | Mk old edition pg 58 – 95  New Mk pg 47 – 76  Understanding MTCbk 5 pg 37 – 59  Functional MTCbk 5 pg 45 – 80  Pri five curri pg 88-89 |
| 5 | 1 to 6 | Whole numbers | Mixed operations  Statistics | Use of BODMAS  Finding mode of given data  Working out median of given data  Finding mean/average  Finding range  comparing numbers using symbols >, <, =  comparing average and total | Uses operations of (+, -, x and ÷) to solve problems in real life situations  Finds, mode, median, mean and range  Compares average and total | Spells words  Mode  Median  Average  Range  Use words above in sentences  Interpreting problems involving four basic operation |  |  | Reading and solving real life problem |  |  |
| 6 | 1 to 6 |  | Numbers in base five  Bases 5 | Grouping in base five and ten  Place value of bases  Writing bases in words  Expanding in bases 5,  Changing from bases 5, to base ten.  Changing from base ten to 5,  addition of bases 5,  Subtraction of bases 5  Multiplication | Counts in base five two and seven  Adds in bases 5,  Subtracts in bases 5,  Multiplies numbers in bases 5, | Spells words  Base  Expand  Five  Seven etc  Pronounces words above | Guided discussion  Demonstration  Group work  Explanation | Critical thinking  Problem solving | Counting  Computing problem involving addition, subtraction and multiplication of numbers in bases | Prepared charts  Counters |  |
|  |  |  | Finite system | Counting in figure five and seven  Expressing numbers in finite five and seven  Addition and subtraction using a dial  Addition and subtraction without using a dial | Adds using a dial and without using a dial |  |  |  |  |  |  |
| 7 | 1 to 6 | Patterns and sequences | Divisibility tests  Multiples of numbers  LCM  Factors  GCF  Prime and  Composite numbers | Divisibility tests of 2, 3, 4, 5, 10  Multiples of given numbers  Finding LCM  Finding factors of numbers  Finding GCF  Definition of prime and composite numbers | Forms patterns using increasing and decreasing progression  Identifies triangular, square composite numbers and  Prime numbers  Works out LCM and GCF | Spells words  Divisibility  Multiples  Factors  Pronounces the above words  Uses above words in sentences | Discussion  Questions and answer  Group work  Explanation | Critical thinking  Creative thinking  Problem solving | Work cards  Charts  Prepared charts | Identifying and listing types of numbers  Listing factors and multiples of numbers  Finding the LCM and GCF | Mk new edition bk 5 pg 77 – 92  Functional MTCpg 85 – 107  Pri five curri pg 90-91 |
| 8 | 1 to 6 |  | Prime factorization  Square numbers  Square roots  Sets of numbers  Magic squares | Use of factor tree and ladder to prime factorise  Find LCM and GCF using prime factors  Finding squares of numbers  Finding square roots  Application of square roots  Natural odd, even, prime triangular numbers  Numbers sequences  Operation on patterns (sum, difference, product)  Completing magic squares | Uses types of numbers to form number patterns and sequences  Describes and solves number patterns and sequences  Completes magic squares correctly | Do | Do | Do | Do | Finding LCM and GCF using prime factorisation and solve number patterns |  |
| 9 | 1 to 6 | Fractions | Types of fractions  Equivalent fractions  Reducing fractions  Ordering fractions  Comparing fractions  Operation on fractions | Definition of fractions  Types of fractions  Finding equivalent fractions  Reducing fractions  Ordering fractions  Comparing fractions using >,< or =  Adding fractions with different denominators  Addition of whole numbers to fractions  Adding mixed fractions  Word problems in addition of fractions | Adds fractions with different denominators  Reduces fractions  Orders fractions  Finds equivalent fractions | Spells words  Fraction  Equivalent  Denominators  Uses above in sentences | Explanation  Illustration  Question and answer  Group work  Guided discussion | Effective communication  Problem solving | Work cards  c/b  illustration | Adding fractions with different denominators  Answering oral questions and written exercises  Subtracting of fraction with different denominators | Mk new edition pg 45 – 48  Function MTCbk 5 pg 141 – 166  Understanding MTCbk 5 pg 60 – 96 |
| 10 | 1 to 6 |  | Subtraction  Multiplication | Subtraction fraction with same denominator  Subtraction with different denominator  Fractions from whole numbers  Subtracting mixed fractions  Mixed operation (+ & -)using BODMAS  Multiplying wholes and fractions using repeated addition  Multiplying fractions by natural numbers  Multiplying fractions by fractions  Multiply mixed fractions  Application of fractions (use of “of”) | Subtracts fractions with different denominators  Multiplies fractions by proper fractions  Multiplies fractions by natural numbers  Multiplies fractions by fraction | Reading and solving fractions involving subtractions reading and solving fractions involving multiplication of fractions | Guided discussion  Discovery  Group work  Demonstration | Effective communication  Problem solving |  | Dividing proper fraction by proper fractions  Dividing fractions by natural numbers | Do |
| 11 | 1 to 6 |  | Division of fractions | Finding reciprocals of whole numbers  Finding reciprocals of fractions  Finding reciprocals of mixed fractions  Dividing fractions using LCM and reciprocals.  Division of whole numbers by fractions  Division of fractions by whole numbers  Dividing fractions by fractions  Dividing mixed fractions by mixed fractions  Word problems involving division of fractions | Divides proper fractions by proper fraction  Divides fractions by natural numbers and vice versa  Interprets and solves problems in real life situation | Reading words  Spells words reciprocals  Reading and solving problem s involving division of fractions | Do | Do | Do | Do | Do |
|  |  |  | **Term** | **Two** |  |  |  |  |  |  |  |
| 1 | 1 to 7 | Decimal fractions | Place values of decimals  Values of decimals  Decimals in figures and words  Expanding decimals  Common fractions in decimals  Mixed fractions as decimals  Decimals to common fractions | Place values of decimals upto thousandths  Values of decimals upto hundredths  Decimals in figures and words upto ten thousandths  Expanding decimals using values and powers  Finding expanded numbers (single numbers)  Changing common fractions to decimals  Changing mixed fractions to decimals  Changing decimals to common fractions | Identifying place values of each digit up to thousandth  Finding values of digits in decimals  Converting decimals to fractions and vice versa  Adds and subtracts decimals  Solves word problems | Naming place values  Reading and writing values of decimals in words.  Reads aloud and solves problems  Involving decimals  Reading and interpreting word problems | Discussion  Demonstration  Discovery  Participatory learning | Effective communication  Problem solving | Work cards  Chalk board illustrations | Finding place values of digits in numbers  Converting decimals into fractions  Ordering decimals using a number line  Adding and subtracting decimals |  |
| 2 | 1 to 7 |  | Comparing decimals  Ordering decimals  Operations on decimals (+, -, x, ÷) | Comparing decimal using symbols(>,< or =)  Ordering decimal fraction decimals addition of  Subtraction of decimals  Multiplication of decimals (simple decimals)  Division of decimals  Word problems in decimals  Rounding off decimals | Comparing decimals using (>,<, or=)  Ordering fractions (decimal)  Operation on decimal fraction (+, -, x,÷) | Reading and interpreting word problems involving decimals | Do | Do | Do | Answering oral and written exercises |  |
|  | 1 to 10 | Measurement | Money | Simple rates and proportions  Buying and selling  Buying price  Selling price  Profits and loss  Shopping bill  Completing bill tables  Transport charges | Solves practical problems related to buying and selling using Uganda Currency  Uses practical examples to describe simple profits and loss | Describe profits gain loss and other related terms  Role by plays  Buying and selling | Demonstrations  Explanation  Guided discovery | Problem solving  Logical thinking  Effective communication  Creative thinking | Price list chart  Uganda currency notes | Computing and solving problems related to profit and loss.  Role play buying and selling | p.5 curri pg 100-101 |
|  | 1 to 10  1 to 10 |  | Time  Time tables  Distance  Speed  Time | Telling time in am and pm  Hours to minutes and vice versa  Addition and subtraction of time  Finding duration  Interpreting time tables  Finding distance, time and speed | Tells time in 12hr clock  Finds duration  Solves problems related to speed, distance and time  Recognizes minutes and seconds | Constructs phrases involving time  Explains the meaning of am and pm  Reds and tells time verbally on the 12 hours clock | Do | Effective communication  Decision making  Problem solving | Clock  Time table  Charts | Reading and telling time up to the seconds  Working out duration  Calculating speed  Distance  And time |  |
|  | 1 to 12 | Geometry | Parallel lines perpendicular lines  Intersecting lines polygons  Lines of folding symmetry  Circles  Triangles  Hexagons  Squares  Rotation and revolution | Definition of parallel and perpendicular lines  Drawing parallel lines intersecting liens  Drawing perpendicular lines  Construction of circles  Constructing regular polygons in a circle  Equilateral triangles  Regular hexagon  An equilateral triangle without a circle  Constructing a square  Types of triangles  Examples of quadrilateral  Other polygons  Folding lines of symmetry | Identifies and draws parallel intersecting and perpendicular lines  Constructs triangles , circles and regular hexagons  Describes lines of folding symmetry  Draws and measures angles | Describes parallel lines intersecting and perpendicular lines  polygons  Labels angles  Reds and writes sentences about the angels  Describes the parts of circles | Do | Do | Ropes  Sticks  Geometry tools | Constructing lines  Geometrical instruments  Constructs polygons  Folds various models to recognize and identify lines of folding symmetry | Mk bk 5 pg 175 – 197 |
|  | 1 to 8 |  | Angles | Angles and revolutions  Angles on a compass  Types of angles  Measuring angles using a protractor  Drawing angles using a protractor  Clockwise and anticlockwise directions  Complementary and supplementary angles,  Interior angles | Draws and measures angles  Draws diagrams to show rotation and revolutions  Names examples of rotations  Follows instructions to draw rotations and revolutions | Reads and spells words revolutions protractor  Supplementary  Writes sentences using the above words | Do | Do | Do | Constructs rotations using their toes | Do |
|  |  | Data handling | Picto graph | Pictograph interpretation  Drawing pictographs  Reading and interpreting tables  Drawing and interpreting tables  Drawing bar graphs from tables  Bar graph interpretation  Recording information from a bar graph into a table | Draws and recognizes scales on the horizontal and vertical axes  Represents and interprets data on bar and line graph  Determines and uses the average of bar and line graphs | Pronounces  Horizontal  Vertical  Axis  Graphs  Spells words  Horizontal  Vertical  Axis  Graphs  Reads and interprets information on bar and line graphs | Discussion  Guided discovery  Explanation | Effective communication  Critical thinking | A chart showing bar or line graph | Drawing graphs  Representing  Interpreting data on graphs  Working out average of given data | New mkbk 5 pg 214 to 231  P.5 curri pg 97-98 |
|  |  |  | Temperature | Describing temperature  Instruments to measure used to measure temperature  Drawing the thermometer  Units used to measure temperature  Reading minimum and maximum temperature  Word problems on temperature  Reading temperature on a graph | Describes temperature  Draws a thermometer  Recognizes units of temperature  Draws temperature bar graphs | Pronounces  Temperature  Degrees  Spells  Temperature  Degrees  Use temperature in sentences  Reads | Group discussion  Discovery  Explanation | Effective communication  Problem solving | Thermometer  Charts | Describing temperature  Reading and interpreting graphs on temperature | A new mk bk5 pg 233 – 236  Understanding MTCbk 5 pg 190 – 193 |
| **P.5 MATHEMATICS Term Three** | | | | | | | | | | | |
| 3 |  | Measurements | Length, Mass and capacity | Units used to measure length  Estimating length  Measuring length of objects  Conversion of units e.g. cm to mm and vice versa.  M to cm and vice versa  Km to m and vice versa | Converting mm to cm  Cm to m  Km to m  And vice versa | Constructing sentences using mm, cm, m, km | Guided discovery  Discussion  Explanation | Logical thinking  Effective communication  Problem solving | Ruler  Books  Stick  Metric tables | Converting cm to m  M to k and vice versa | Mk new edition pg 151 – 156  Functional MTC bk5 pg 161  P.5 curri pg 94-95 |
| 4 | 1 to 2 |  | Perimeter  Area | Perimeter of figures  Triangles, rectangles, squares, pentagon, hexagon  Combined figures  Area of figures triangles, rectangles, squares, combined figures  Difference in area | Calculates perimeter and area of figures | Reads and interprets perimeter and area | Do | Do | Do | Calculating perimeter and area of figure |  |
| 5 | 1 to 10 |  | Volume  Total surface area  Capacity  Weight (mass) | Volume cuboid and cubes  Application of volume  Total surface area of a cuboid  Unity for capacity  Litres to ML/cm3 and vice versa  Describing mass or weight  Basic units of mass  Kg to gm and vice versa | Solving problem involving volume and total surface area | Reads and interprets word problem involving volume, total surface area, capacity and mass | Demonstration  Discovery  Explanation | Do | Boxes  Container  Cups  Jerry cans etc | Working out problems involving volume  TSA capacity and mass | New mk bk5 pg 161 – 163  Understanding MTC bk5 pg 161 |
| 1 | 1 to 10 | Integers | Positive and negative integers  Inverse of integers  Operation on integers  Ordering integers  Comparing integers  Simple word problems | Defining integers  Identifying positive and negative integers  Representing integers on a numberline  Ordering integers  Comparing integers  Finding inverse of integers  Addition of integers using a number line  Subtraction of integers using a number line  Forming mathematical sentences  Addition of integers without a number line  Subtraction of integers without a number line | Draws number lines  Identifies positive and negative integers  Arranges integers  Compares integers using >,< or =  Adds integers  Subtracts integers  Solves simple word problems | Pronounces integers  Spells the word integers  Positive and negative  Uses the words  Greater than  Less than  Equal to  Reads word problems involving integers | Demonstration  Discussion  Explanation  Discovery | Problem solving  Critical thinking | Charts showing into | Adding and subtracting integers  Using number lines to describe negative and positive  Writing integers in ascending and descending order  Comparing integers using symbols | Mk new edition bk5 pg 95 – 114  Mk new edition bk 6 pg 103 – 111  Functional MTCbkpg 109 – 121 |
| 2 | 1 to 12 | Algebra | Collecting like terms  Substitution  Forming algebraic expressions  Solving equation  Forming and solving equations | Forming algebraic expression  Collecting like terms  Substitution  Solving equations by  Subtracting  Adding  Word problems involving subtraction and addition  Solving by dividing  Solving by multiplying  Word problems involving division and multiplication | Forms algebraic expressions  Collect like terms  Solves simple equations\  Forms algebraic equations  Collects like terms  Solves simple equations | Pronounces substitution  Equations  Spells  Like terms  Uses substitution and equation in sentences | Do | Do | Chalk board illustrations | Forming algebraic expressions  Collecting like terms  Solving simple word problems | Mk bk5 pg 271 – 283 |
| 3 | 1 to 10 | Algebra | Removing brackets  Mixed equations  Equations involving squares | Solving equations involving squares  Solving equations involving squares and square roots  Application of algebraic  Perimeter  Area  Volume | Solves simple word problems  Applying algebraic in volume, area, and perimeter | Pronounces  Brackets  Equations  Squares  Spells  Brackets  Equations  Squares | Do | Do | Do | Solving simple and problems  Oral and written exercises | Mk bk 5 pg 280 – 287 |