**P. 6 MATHEMATICS SCHEME OF WORK AND TOPICAL BREAKDOWN – 2024**

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| **UNIT** | **ITEM** | **BREAKDOWN** |
| **1** | **SET CONCEPTS** | * Review of universal, union, intersection, compliment, subset, difference of sets, empty set, equal, equivalent, joint and disjoint sets etc * Use of venn diagrams to solve problems (two venn diagrams) * Integrating probability with venn diagrams |
| **2** | **NUMERATION SYSTEM AND PLACE VALUE** | * Review of P.5 work on place values * Reading and writing numerals in words up to millions * Reading and writing numerals from words to figures up to millions * Expanding numerals – values; multiples to powers * Writing expanded numbers in short form * Rounding off whole numbers up to the nearest millions   **Roman numerals**   * Reading and writing roman numerals up to MM * Conversion from Hindu to Roman and vice versa * Addition and subtraction of roman numerals * Application of roman numerals   **Bases**   * Addition, subtraction and multiplication up to 5 digits in non-decimal bases * Conversion of non-decimal bases to decimal bases * Conversion of non-decimal to non-decimal bases * Finding the base used in addition and subtraction |
| **3** | **OPERATION ON NUMBERS** | * Addition up to 1,000,000 * Subtraction up to 1,000,000 * Word problems on addition and subtraction of large numbers * Multiplication and division of large numbers * Word problems involving multiplication and division of large numbers |
| **4** | **NUMBER PATTERNS AND SEQUENCES** | * Review of divisibility tests by 2, 3, 4, 5, * Number patterns   + Composite numbers   + Square numbers   + Triangular numbers   + Prime numbers   + Odd, even numbers   + Multiples   + Factors , LCM, HCF * Application of number patterns – natural, odd, even numbers * Square numbers and square roots of *whole numbers, fractions, mixed numbers, decimals* * Application of square numbers |

**P.6 MATHEMATICS SCHEME OF WORK - TERM ONE 2024**

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| **WK** | **PD** | **TOPIC** | **SUB TOPIC** | **CONTENT** | **Language competence** | **Subject competence** | **Methods** | **t/l aids Materials** | **Life skills** | **REF** | **REM.** |
| **1** | 1 | **SETS CONCPTS** | Types of sets | * Equal sets * Equivalent set * Unequal * Non equivalent sets | * Spells * Reads, pronounces and uses new words in the sentences | * Lists , counters, elements of different sets | * Discussion * Guided discovery * Participatory * Think pair share. | * Real objects * Flash cards * Charts * Containers | * creative thinking * Effective communication * Cooperation * Critical thinking * Problem solving | * Mk new edition pg 1-2 * Understanding mtcpp 1-3 * Fountain primtc1-8 * Fountain pg 8-10 Mk new edition pg 1-2 |  |
|  | 2 |  |  | * Intersecting set * Joint sets * Disjoint sets * Union sets * Universal sets | * Spells * Reads, pronounces and uses new words in the sentences | * Draws Venn diagrams * Lists elements * Identifies elements | * Discussion * Guided discovery * Participatory. | * Real objects * Flash cards * Charts * Containers | * creative thinking * Effective communication | New mk pri mtc bk 6 |  |
|  | 3 |  |  | * Difference of set * Shading regions * Complements of sets | * Spells * Reads, pronounces and uses new words in the sentences | * Finds difference of sets * Shades regions * Finds complements of sets | * Discussion * Guided discovery * Participatory. | * Real objects * Flash cards * Charts * Containers | * creative thinking * Effective communication | * Mk new edition pg * Understanding mtc * Fountain primtc   Fountain mtc |  |
|  | 4 |  |  | * Subsets * Listing and forming subsets * Finding number of subsets and proper subsets | * Spells reads, pronounces and uses new words correctly | * Lists subsets \finds number of subsets | * Discussion * Guided discovery * Participatory. | * Real objects * Flash cards * Charts * Containers | * creative thinking * Effective communication | * Mk new edition pg * Understanding mtc * Fountain primtc |  |
|  | 5 |  | Finding number of elements | * Listing elements * Finding number of elements * Representing elements on the venn diagram | * Spells reads, pronounces and uses new words correctly | * Lists members * Finds number of elements | * Discussion * Guided discovery * Participatory. | * Chalkboard illustrations * Real object | * Logical reasoning | Mk old edition 20-22 |  |
|  | 6 |  | Application of set concepts | * Representing venn diagram * Interpreting on the venn diagram * Finding number of elements | * Spells reads, pronounces and uses new words correctly | * Chalkboard illustration * Wall chart | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 22-25 |  |
|  | 7 |  |  | * Interpreting word problems * Representing information on the venn diagram * Solving for unknown | * Interprets , represents and solves for unknown on the venn diagram | * Discussion * Guided discovery * Participatory. | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Fountain 10-13 |  |
| **2** | 1 |  | Probability | * Identifying the sample spaces * Listing elements * Finding probability | * Spells, reads,. Pronounces and uses the words correctly | * Lists, finds, identifies, and finds probability | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Fountain pg 14-16  Mk new edition 10-12 |  |
|  | 2 | **Whole numbers** | Place and values | * Spells , reads , pronounces and uses the words correctly | * Finds the place values and uses operation |  | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk new edition 14-15  Fountain 20-23 |  |
|  | 3 |  | Expanded form | * Using values * Using place values * Using powers of tens and multiplies of ten | * Spells reads, pronounces and uses new words correctly | * Expands numbers using place values , powers of ten | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Fountain 23-24  Mk new edition 16-17 |  |
|  | 5 |  | Expressing expanded numbers as single numbers | * Expanded form of values, place values, exponents and multiples of ten | * Spells , read, pronounces and uses new words correctly | * Multiplies * Adds * Arranges values correctly | * Discussion * Guided discovery * Participatory. | * Number cards * Real objects | * creative thinking * Effective communication | Mk new edition 18-19  Mk old 38-39 |  |
|  | 6 |  | Writing numbers in words | * Finds place values * \writes numerals in words upto million | * Spells reads, pronounces and uses new words correctly | * Finds place values * Writes in words | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Do |  |
|  | 7 |  | Words in figures | * Identifies place values * Writes number words in figures * Arranges and adds values correctly | * Spells reads, pronounces and uses new words correctly | * Identifies place values * Finds the number * Arranges values | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 47-48 |  |
| **3** | 1 |  | Rounding off | * Identifying required place values * Finding the nearest place values * Rounding off whole numbers | * Spells reads, pronounces and uses new words correctly | Identifies nearest place values and requires place values  Rounds off whole numbers | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 48  Understanding 33-35 |  |
|  | 2 |  | Decimal numbers | * Place values * Values | * Spells, reads, pronounces, and uses new words correctly | Finds place values  And values of decimals | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 42-44 |  |
|  | 3 |  | Writing decimals in word sand figures | * Finding place value s * Writing in words * Writing in figures | * Spells reads, pronounces and uses new words correctly | Finds place values  Writes decimals in words and figures | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 45-46 |  |
|  | 4 |  | Expanded form of decimals | * Expanding using place values, values and powers of ten | * Spells reads, pronounces and uses new words correctly | Expands using values, place values and exponents | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication |  |  |
|  | 5 |  | Finding expanded decimals | * Multiplying , dividing, adding, arranging and finding expanded numbers | * Spells reads, pronounces and uses new words correctly | Multiples, divides, adds, and finds expanded numerals | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Do |  |
|  | 6 |  | Ordering decimals | * Ascending and descending * Finds LCM * Multiplying | * Reads, spells , pronounces and uses words correctly | Finds LCM  Multiples and arranges in order | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Tr’ collection |  |
|  | 7 |  | Rounding off decimals | * One place decimal * Two place decimals * Three place decimals and whole numbers | * Spells reads, pronounces and uses new words correctly | Identifies place values and rounds off correctly | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 48 |  |
| **4** | 1 |  | Roman numerals | * Expanding numbers * Writing Hindu to Roman numerals to 1000 * Writing roman to Hindu Arabic numerals | * Spells reads, pronounces and uses new words correctly | Expands  Interprets and writes numerals to Hindu Arabic or roman numerals | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Fountain 26-30 |  |
|  | 2 |  | Operation on roman numerals | * Changing roman to hindu Arabic ans vice versa * Adding and subtracting | * Spells reads, pronounces and uses new words correctly | Changes to roman numerals or hind Arabic numerals  Adds and subtracts | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 50-51 |  |
|  | 3 |  | Basses | * Counting in base two and five * Naming non decimal base   Converting to non decimal bases | * Reads * Pronounces * Uses new words in sentences | Counts in base two and five  Names non decimal bases  Converts to non decimals bases | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Tr’s collection |  |
|  |  |  |  | * Expanding * Identifying place values * Changing to decimal base | * Spells reads, pronounces and uses new words correctly | Identifies place values and changes to base ten | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Tr’s collection |  |
|  | 4 |  |  | * Addition of bases * Identifying place values * Regrouping | * Spells reads, pronounces and uses new words correctly | Regroups  Identifies place values and adds in bases | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Tr’s collection |  |
|  | 5 |  |  | * Subtracting bases * Regrouping * Identifying place values * Multiplying bases | * Spells reads, pronounces and uses new words correctly | Subtracts and multiplies | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Tr’s collection |  |
|  | 6 |  | Finite system | * Grouping numbers n finite system * Dividing using finite * Adding using dial method * Multiplying in finite | * Spells , read, pronounces and uses new words correctly | Counts  Groups  Divides  Multiplies  And adds using finite system | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 245-253 |  |
|  | 7 |  |  | * Regrouping using dial * Subtracting in finite system | * Spells reads, pronounces and uses new words correctly | Regroups and subtracts in finite system | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 245-253 |  |
| **5** | 1 |  |  | * Solving equation in finite system * Dividing * Finding the unknown | * Spells reads, pronounces and uses new words correctly | Solves equation in finite system | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 245-253 |  |
|  | 2 |  |  | * Application of finite * Interpreting days and mass in finite system * Finding past and future time in finite system | * Spells reads, pronounces and uses new words correctly | Interprets days and mass  Finds past and future time | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 245-253 |  |
|  | 3 |  | Addition of whole numbers | * Identifying place values * Arranging * Adding | * Spells, reads , pronounces and uses new words correctly | Identifies place values  Arranges and adds whole numbers | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Understanding mtc 40-42 |  |
|  | 4 |  | Subtraction | * Identifying place values * Arranging * Subtracting | * Spells reads, pronounces and uses new words correctly | Identifies place values  Arranges and subtracts whole numbers | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Fountain 32-35 |  |
|  | 5 |  | Multiplication | * Arranging according to place values * Regrouping * Multiplying | * Spells reads, pronounces and uses new words correctly | Arranges  Regroups  Multiplies | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | New mk edition 27  Fountain 33-34 |  |
|  | 6 |  | Division | * Using long division * Regrouping * Multiplying * Subtracting * Dividing | * Spells reads, pronounces and uses new words correctly | Divides | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | New mk 29-30 |  |
|  | 7 |  | Word problem | * Interpreting statement * Writing mathematical statements * Dividing quantities | * Spells reads, pronounces and uses new words correctly | Interprets statements  Writes mathematical statements  Divides quantities | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk new 2-30  Fountain 37-38 |  |
| **6** | 1 |  | Mixed operation | * Using BODMAS | * Spells reads, pronounces and uses new words correctly | Interprets BODMAS correctly | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | New mk 37-32 |  |
|  | 2 |  | Properties of numbers | * Commutative property * Distributive property * Associative property | * Spells reads, pronounces and uses new words correctly | Uses the properties correctly | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Fountain 38-39 |  |
|  | 3 | **Patterns and sequences** | Divisibility tests | * Divisibility tests of 2, and 10 * Divisibility of 3,6, and 9 * Divisibility of 4 and 8 | * Spells reads, pronounces and uses new words correctly | Finds numbers exactly divisible by 2, 5, 10, 3, 6, 9, and 4 and 8 | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communicatio | New mk 34-36  Fountain 41-42 |  |
|  | 4 |  | Developing number patterns | * Odd and even numbers * Triangular , square and whole numbers * Counting numbers | * Spells reads, pronounces and uses new words correctly | Lists and completes number patterns | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | Chalkboard illustration   * Wall chart | Fountain 43-48  Mk new 37 |  |
|  | 5 |  | Prime and composite numbers | * Listing prime numbers * Composite numbers | * Spells reads, pronounces and uses new words correctly | Lists and identifies composite and prime numbers | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Old mk 77-78 |  |
|  | 6 |  | Consecutive numbers | * Natural numbers * Counting numbers * Integers * Forming equation * Solving equation | * Spells reads, pronounces and uses new words correctly | Forms number patterns and equations  Solves | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Fountain 43-49 |  |
|  | 7 |  |  | * Even numbers * Odd numbers * Forming and solving equations * Finding consecutive numbers | * Spells reads, pronounces and uses new words correctly | Finds consecutive even and odd numbers | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old edition 245-253 |  |
| **7** | 1 |  | Factors | * Listing factors * Common factors * HCF, GCF | * Spells reads, pronounces and uses new words correctly | Lists factors  Identifies common factors  Finds GCF | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old 82-83 |  |
|  | 2 |  | Prime factorization | * Using multiplication * Subscripts * Powers * Factor tree * Ladder | * Spells reads, pronounces and uses new words correctly | Uses factor tree or ladder to prime factorise  Writes prime factors accordingly | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old 86 |  |
|  | 3 |  | Finding prime factorised numbers | * Multiplying * Interpreting powers and subscripts * Finding prime factorised numbers | * Spells reads, pronounces and uses new words correctly | Interprets factors and subscripts correctly  Finds numbers correctly | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Old mk 86 |  |
|  | 4 |  | Multiples of numbers | * Listing multiples c * Common multiples * LCM * Prime factorizing | * Spells reads, pronounces and uses new words correctly | Lists /finds LCM  Prime factorises numbers | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Old mk 86-87 |  |
|  | 5 |  | LCM and GCF | * Prime factorizing * Listing prime factors * Showing prime factor s on the venn diagram * Finding LCM and GCF | * Spells reads, pronounces and uses new words correctly | Finds LCm and GCF using a venn diagram | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Do |  |
|  | 6 |  | Prime factors on the venn diagram | * Finding the missing prime factors * Finding the HCF and the LCM | * Spells reads, pronounces and uses new words correctly | Finds unknown factors  Finds GCF and LCM | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old 88-89 |  |
|  | 7 |  | Application of GCF and LCM | * Relationship between GCF and LCM * Multiplying numbers | * Spells reads, pronounces and uses new words correctly | Multiplies  Finds unknown numbers  Applies LCM and GCF | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old 85 |  |
| **8** | 1 |  | Application of LCM | * Prime factorizing * Multiplying intervals * Finding common numbers | * Spells reads, pronounces and uses new words correctly | Prime factorise  Multiplies  Finds LCM  Applies LCM | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Do |  |
|  | 2 |  | Powers of whole numbers | * Finding number of powers * Expressing number of powers * Operation of powers | * Spells reads, pronounces and uses new words correctly | Interprets powers  Expresses number of as powers | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Tr’s collection |  |
|  | 3 |  | Square of numbers | * Squares of * Whole numbers * Fractions * Mixed numbers * Decimals | * Spells reads, pronounces and uses new words correctly | Finds squares | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Mk old 39-40 |  |
|  | 4 |  | Square roots | * Prime factorizing * Writing prime factors * Finding square roots | * Spells reads, pronounces and uses new words correctly | Prime factoises  Writes prime factors  In multiplication form  Finds square roots | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | New mk 39  Tr’s collection |  |
|  | 5 |  | Square roots of fraction | * Chalkboard illustration * Wall chart | * Spells reads, pronounces and uses new words correctly | Do | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Tr’s collection |  |
|  | 6 |  | Application of square roots | * Forming equations * Prime factorizing * Finding square roots | * Spells reads, pronounces and uses new words correctly | Forms equation  Prime factorise  Uses square roots | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Tr’s collection |  |
|  | 7 |  | Cube and cube roots | * Finding cubes * Forming equations * Finding cube roots | * Spells reads, pronounces and uses new words correctly | Finds cubes and cube roots | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Fountain 49 |  |
| **9** | 1 |  | Sequences | * Identifying types of number * Finding number patterns * Completing sequence | * Spells reads, pronounces and uses new words correctly | Identifies types of numbers  Finds pattern numbers  Completes the sequences | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Do |  |
|  | 2 |  | Puzzle and magic square | * Forms puzzles * Finding magic sum * Completing magic squares | * Spells reads, pronounces and uses new words correctly | Forms magic square  Completes magic square | * Discussion * Guided discovery * Participatory. | * Chalkboard illustration * Wall chart | * creative thinking * Effective communication | Understanding mtc 74 |  |

3