**VICTORIOUS PRIMARY SCHOOLS**

**P.5 MATHEMATICS SCHEME OF WORK 2018**

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| WK | PD | THEME | TOPIC | SUB-TOPIC | COMPETENCE | | CONTENT | METHODS | ACTS | L/SKILLS | T/L/AIDS | REF |
| 1 | 1 | Sets | Set concepts | Types of sets review | Identifies the different kinds of sets  Defines the different kinds of sets | Reads the different kinds of words  Spells the different words correctly | Equal and unequal sets  Equivalent and non – equivalent sets  Joint and disjoint sets  Union and intersection sets | Explanation  Guided discovery  Group work | Identifying the different kinds of sets  Defining the different kinds of sets | Effective communication  Critical thinking | Chalkboard illustration |  |
|  | 2 |  |  | Difference of sets and complement | Identifies the elements in different sets  Draws a plain venn diagram  Shaded the stated regions | Pronounces the new words fluently  Describes the given regions correctly | Difference of sets  Complement of sets | Explanation  Guided discovery  Group work | Identifying the elements in different sets  Shading identified regions | Effective communication  Analytical thinking  Fluency |  |  |
|  | 3 |  |  | Shading regions on a plain Venn diagram | Draws the plain Venn diagram correctly  Shades the given regions correctly | Describes the different kinds of set regions | Plain Venn diagrams  Shading of different regions | Explanation  Demonstration  Group work | Describing set regions  Drawing plain Venn diagrams  Shading the asked regions | Critical thinking  Analytical thinking |  |  |
|  | 4 |  |  | Representing row data on a universal venn diagram | The learner;  Identifies elements in different sets  Representing the data on a Venn diagram | The learner;  Reads elements and words given fluently  Spells the given words correctly | Reading elements of sets  Representing data on a universal Venn diagram | Explanation  Demonstration  Guided discovery | Reading elements of sets  Representing data on a universal Venn diagram | Chalkboard illustrations | Problem solving  Effective communication  Confidence |  |
|  | 5 |  |  | Representing number of elements on a universal Venn diagram | The learner;  Identifies the sets and regions on a venn diagram  Represents the number of elements on a Venn diagram | The learner;  Describes the different regions on a Venn diagram  Reads the number of elements on a universal Venn diagram | Read the numbers in different sets  Representing data on a universal Venn diagram | Explanation  Demonstration  Group work | Reading the numbers given in sets  Representing information on a Venn diagram | Charts showing Venn diagrams | Problem solving  Effective communication  Confidence |  |
| 2 | 1 |  |  | Subsets  Forming subsets and proper subsets | The learner;  Identifying the numbers of elements  Forming the subsets and proper subsets | The learner;  Describes the meaning of a subset and proper subset | Forming subsets  Forming proper subsets | Explanation  Demonstration  Guided discovery | Describing a subset and proper subset  Forming subsets and proper subsets | Chalkboard illustrations | Problem solving  Effective communication |  |
|  | 2 | Sets | Set concept | Representing row data on a plain Venn diagram | Identifies the elements in different sets  Represents the elements on a Venn diagram | Describes the different regions on a Venn diagram  Reading elements on a Venn diagram | Representing row data on a Venn diagram  Reading elements on a Venn diagram | Explanation  Demonstration  Guided discovery | Describing different regions on a Venn diagram  Reading the elements on a Venn diagram | Chalkboard illustration | Critical thinking  Analytical thinking |  |
|  | 3 |  |  | Number of elements on a plain Venn diagram | Identifies the different regions on a Venn diagram  Finds the no. of elements in different regions on a Venn diagram | Reads the words given and structures fluently | Reading the elements and counting them  Number of elements in a Venn diagram given | Explanation  Demonstration  Guided discovery | Reading the new words given  Identifying the regions on a Venn diagram | Chalkboard illustration  Charts | Problem solving  Critical thinking |  |
|  | 4 |  |  | Universal sets and Venn diagrams | Draws a Universal Venn diagram  Shades the different regions on a Venn diagram | Describes the different regions on a Venn diagram | Universal sets  Universal Venn diagrams | Explanation  Demonstration  Guided discovery | Describing region on a Universal Venn diagram  Shading regions on a Universal Venn diagram | Chalkboard illustration | Creative thinking  Critical thinking |  |
|  | 5 | Sets | Set concept | Finding number of subsets and proper subsets, use of a formula | Derives a formula from the elements of the set  Finds the number of subsets and proper subsets | Describes the elements in the formula  Reads the new words fluently | Deriving the formula of subsets and proper subsets  Number of proper subsets and subsets | Explanation  Demonstration  Guided discovery  Group work | Deriving the formula of subsets  Finding the number of subsets and proper subsets | Work cards  Charts showing subsets | Problem solving  Effective communication  Confidence |  |
| 3 | 1 | Numeracy | Whole numbers | Place values | The learner;  Identifies digits in the place required  Find the place value required | The learner;  Pronounces, reads, writes new words place, value digit e.t.c | Find the place values of digits of given numbers | Guided discussion  Explanation  Brain storming | Identifying place values up to 6 digits | Critical thinking  Problem solving | A chart showing place values |  |
|  |  |  |  | Place values of digits | The learner;  Identifies digits in the place required  Find the place value required | The learner;  Pronounces, reads, writes new words, place. e.t.c | Find the values of digits in whole numbers | Group work  Explanation | Working out values of digits | Critical thinking  Problem solving | A chart showing values |  |
|  | 2 |  |  | Writing whole numbers in words | The learner;  Identifies place values of digits  Read numbers in words  Writes numbers in words | The learner;  Pronounces, reads, writes new words, number e.t.c | Writes the numbers in words | Guided discussion  Explanation | Reading and writing numbers in words | Critical thinking  Logical thinking | Chalk board illustration |  |
|  | 3 | Numeracy | Whole numbers | Writing whole numbers in figures from words | The learner;  Reads the structures  Writes structures in figures | The learner;  Pronounces, reads, writes structure, sentence, figure, phase | Write words in figures | Explanation  Guided discovery | Writing words in figures | Critical thinking  Problem solving | Chalkboard illustrations |  |
|  | 4 |  |  | Expanding whole numbers | The learner;  Identifies place values  Finds values  Expand numbers in various forms | The learner;  Pronounces, reads, writes place values, expand etc | Expand numbers using;  Values  Place values  Powers of ten | Guided discussion  Explanation | Expanding numbers | Critical thinking  Logical thinking | A chart showing values of numbers |  |
|  | 5 |  |  | Finding numbers that have been expanded | The learner;  Identifies the form of expansion  Writes expanded numbers in figures (singles) | The learner;  Pronounces, reads, writes new words, Then, Indece, Power, exponents | Writing expanded numbers in figure (singles) | Guided discovery  Discussion  Explanation | Writing expanded numbers as single numbers | Critical thinking  Problem solving | Chalk board illustration |  |
| 4 | 1 |  |  | Rounding off numbers | The learner;  Identifies the place values  Rounds of numbers | The learner;  Pronounces, reads, writes, round, off etc | Rounding off numbers up to the nearest ten thousand | Guided discussion  Explanation | Rounding off whole numbers | Critical thinking  Problem solving | Chalkboard illustration |  |
|  | 2 |  |  | Roman numerals | The learner;  Deals with basic Roman numerals up to 1000  Deals with repeated Roman numerals  Adds Roman numerals | The learner;  Pronounces, reads, writes, Roman numeral, number, etc | 1.Basic Roman numerals 2.Repeated Roman numerals3.Addition Roman numerals 4. Subtracting roman numerals | Guided discussion  Explanation  Guided discovery | Reading and writing in Roman numerals | Critical thinking  Logical thinking | Chalkboard illustration |  |
|  | 3 |  |  | Hindu numbers to Roman numerals and vise versa | The learner;  Writes Hindu Arabic numerals to Raman numerals  Writes Roman to Hindu Arabic numerals | The learner;  Pronounces, reads, writes, apply, Roman, sentence, etc | Applying Hindu – Arabic numerals to Roman numerals and vise verse | Explanation  Guided discovery  Guided discussion | Reading structures  Analyzing sentences  Calculating numbers | Critical thinking  Logical thinking | A cahrt showing numerals |  |
|  | 4 | Numeracy | Operation on whole numbers | Review | Operation symbols | Terms used in operation | Symbols and terms used | Question and answer | Identifying operational symbols | c/b illustration | Critical thinking |  |
|  | 5 |  |  | Addition without regrouping | Adds numbers without regrouping  Solves word problems | Reads word problems | Addition of whole numbers | Problem solving  Group work | Adding whole numbers | Counters  Abacus | Critical thinking  Problem solving |  |
| 5 | 1 |  |  | Addition with regrouping | Adds numbers with regrouping  Solves word problems | Reads word problems | Addition of whole numbers | Group work problem solving | Adding whole numbers | Counters  Abacus | Critical thinking  Problem solving |  |
|  | 2 |  |  | Subtraction without regrouping | Subtracts whole numbers up to 6 digits  Solves word problems | Uses terms correctly for subtraction ie decrease  Reads and interprets terms used in subtraction | Subtraction of whole numbers | Demonstration  Role play  Problem solving | Subtracting whole numbers | Counters  Abacus | Critical thinking  Problem solving |  |
|  | 3 |  |  | Subtraction with regrouping | Subtracts whole numbers up to 6 digits  Solves word problems | Reads and interprets terms used in subtraction | Subtraction of whole numbers | Demonstration  Role play  Problem solving | Subtracting whole numbers | Counters  Abacus | Critical thinking  Problem solving |  |
|  | 4 |  |  | Multiplication of whole numbers | Multiplies nos up to 4 digits by 2 digits | Reads and interprets multiplication statements  Plays games involving multiplication statements | Multiplying up to 4 digits by 2 digits | Group work  Guided discovery | Multiplying | Counters  tables | Critical thinking  Accuracy |  |
|  | 5 |  |  | Word problems involving multiplication |  | Reads and interprets multiplication statements | Multiplying up to 4 digits by 2 digits | Guided discovery  Explanation | Multiplying | Counters  Tables | Critical thinking  Problem solving |  |
| 5 | 1 |  |  | Division of whole numbers | Divides by 2 digit numbers without remainders | Uses mathematical terms like share, quotient etc correctly  Interprets word problems | Division of whole nos by2 digits | Demonstration  Guided discovery | Dividing numbers by 2 digit | Real objects | Sharing  Critical thinking |  |
|  | 2 |  |  |  | Divides by 2 digit numbers with remainders |  |
|  | 3 |  |  | Mixed operations numbers | Uses the operations of addition , subtraction, multiplication and division to solve problems | Interprets problems involving the 4 basic operations | Mixed operations | Group work Demonstration | Reading and solving mixed operations | c/b illustration | Observation  Logical thinking |  |
|  | 4 |  |  | Base system  Counting in base five | Counts in base five | Counts in base five | Numbers in base five | Demonstration  Explanation  Discovery | Counting numbers in base five | B/tops  Books  Sticks | Creative thinking |  |
|  | 5 |  |  | Place values of digits in base 2 , 3 , 4 , 5 | Identifies place values | Writes place values | Place values of digits in base 2 , 3 , 4 & 5 | Explanation  Guided discovery | Writing place values | A chart showing place values | Creative thinking |  |
| 6 | 1 |  |  | Writing non decimal bases in words | Writes decimal bases in words | Reads decimal bases | Writing non decimal bases in word | Guided discovery  Explanation | Writing non decimal bases in words | c/b illustration | Critical thinking |  |
|  | 2 |  |  | Expand non decimal bases | Expands non decimal bases | Writes the expanded non decimal bases | Expanding non decimal bases | Discovery  Group work | Expanding non decimal bases |  | Critical thinking |  |
|  | 3 |  |  | Changing numbers to base ten | Finds values of each digit | Writes values of each digit | Changes numbers to base ten | Guided discovery  Explanation | Changing numbers to base ten | c/b illustration | Logical thinking |  |
|  | 4 |  |  | Addition of non decimal base | Adds non decimals base | Reads and writes non decimal bases | Addition of non decimal bases | Explanation  Demonstration  Discovery | Adding non decimal base | c/b illustration | Problem solving |  |
|  | 5 |  |  | Subtraction of non decimal base | Subtracts non decimal base | Subtraction of non decimal bases | Subtracting non decimals bases |  |  |  |
| 7 | 1 |  | Patterns and sequences | Review types of numbers | Identifies types of numbers | Defines the given types of numbers | Whole numbers  Counting numbers  Even and add numbers | Questions and answer  Explanation | Listing different types of numbers | c/b illustration | Critical thinking |  |
|  | 2 |  |  | Types of numbers | Identifies types of numbers | Define the given types of numbers | Square numbers  Triangular numbers  Prime numbers  Composite numbers | Demonstrating  Discovery | Listing different numbers |  | Logical thinking  Critical thinking |  |
|  | 3 |  |  | Forming patterns and sequences | Forms patterns and sequences in ascending | Reads and writes patterns and sequences | Formation of patterns and sequences in ascending order | Demonstration  Guided discovery  Explanation | Forming number patterns and sequence in ascending order | Counters e.g sticks | Logical thinking |  |
|  | 4 |  |  | Completing number sequences | Completes the given sequence | Reading number sequences | Finding the next number in sequences | Question and answer  Explanation | Finding the next number | Flash cards | Creative thinking |  |
|  | 5 |  |  | Multiples of numbers | Lists multiples of numbers | Reads multiples of numbers | Multiples of numbers | Explanation | Finding multiples | tables | Problem solving |  |
|  |  |  |  | LCM of numbers | Writes down multiples of numbers | Reads multiples of numbers | Multiples of numbers | Explanation | Finding multiples | Tables | Problem solving |  |
| 8 | 1 |  |  | Factors of numbers | Finds the factors of numbers | Writes factors of number | Factors of numbers | Group work | Finding factors of numbers | Tables | Critical thinking |  |
|  | 2 |  |  | GCF / HCF | Finds the factors of numbers | Writes factors of numbers | Finding GCF, HCF of numbers | Explanation  Questions and answer | Finding GCF / HCF | c/b illustration | Critical thinking |  |
|  | 3 |  |  | Prime factorisation | Prime factorises numbers | Writes prime factors | Prime factorization | Guided discovery | Prime factorisation numbers | c/b illustration | Logical thinking |  |
|  | 4 |  |  | Representing prime factors on a Venn diagram | Represent prime factors on a Venn diagram | Writes prime factors | Representation of prime factors on a Venn diagram | Demonstration  Discussion | Representing prime factors or a venn diagram | A chart | Logical thinking |  |
|  | 5 |  |  | Using the Venn diagram to find LCM and GCF | Uses the Venn diagram to find LCM and GCF | Interprets the given Venn diagram | Finding LCM and GCF using the Venn diagram | Explanation  Guided discovery | Finding LCM and GCF | A chart | Critical thinking |  |
| 9 | 1 |  |  | Squares and square roots of whole numbers | Finds square and square root | Writes square and square roots of numbers | Squares and square root of numbers | Discussion  Guided discovery | Finding squares and square roots | c/b illustration | Critical thinking  Problem solving |  |
|  | 2 |  | Fractions | Review  Types of fractions | Identifies the different kinds of fractions  Defines the kinds of fractions  Reduces the fractions using the common factor | Reads the words used in fractions  Spells the words used correctly | Types of fraction  Proper and improper  Mixed numbers  Equivalent fractions  Changing mixed to improper and vice versa  Reducing fractions to lowest terms | Guided discovery  Group discussion  Think pair share | Reading the words used in fractions  Identifying different kinds of fractions  Reducing fractions to lowest terms | Charts  counters | Critical thinking  Effective communication  Fluency |  |
|  | 3 |  |  | Comparing and ordering fractions | Compares the values of different fractions  Arranges the given fraction in the right order | Forms simple structures from the words and figures correctly | Comparing and ordering of fractions  Fractions with same denominators  Use illustrations and LCD | Think pair share  Group discussion  Demonstration | Comparing the values of fractions  Arranging fractions in order  Forming simple structures from the words | Wall charts  Chalk board illustrations | Effective communication  Appreciation |  |
|  | 4 |  |  | Addition of fractions with different denominations | Identifies the denominations  Adds the obtained numerators  Reduces to the lowest terms using common factors | Reads the questions and structures given fluently  Spells the new words correctly | Addition of fractions with same denominators  Addition of fractions with different denominators | Guided discovery  Group discussion  Explanation | Identify different denominators  Adding the given fractions  Reading the new words fluently | Charts  Counters | Critical thinking  Problem solving  Fluency |  |
|  | 5 |  |  | Subtraction of fractions with different denominations | Identifies the denominators of the given fractions  Subtracts the obtained numerators correctly  Reduces the answer to the lowest terms correctly | Pronounces the new word confidently  Forms simple structures from new words correctly | Subtraction of fractions with same denominators ie ¾ - 2/4  Subtraction of fractions with different denominators ie.  ¾ - ½ | Guided discovery  Group discussion  Explanation | Identifying the different denominators  Subtracting the given fraction | Charts  Counters | Problem solving  Fluency  Confidence |  |
| 10 | 1 |  |  | Multiplication of proper fractions | Spots the denominators of the given fractions  Multiplies the numerators and denominators as given directly  Reduces the answer to the lowest terms correctly | Pronounces new words confidently  Spells the words correctly | Multiplication of fractions with same denominators ie ½ x ½  Multiplication of fractions with different denominators i.e  ½ x 2/5 | Group work  Think pair share  Explanation | Spotting the denominators from the given fractions  Multiplying fractions of different denominators  Pronouncing new words | Charts  Counters | Creative thinking  Problem solving  Confidence |  |
|  | 2 |  |  | Multiplication of fractions by whole numbers | Express whole as a fraction  Identifies the denominators of the given fractions  Multiplies the fractions given directly (A fraction from a whole) | Reads the questions given fluently  Solves the problems involving different denominators | Multiplication of a fraction by a whole number  Reduction of the answer to the lowest term | Group work  Think pair share  Explanation | Expressing a whole number as a fraction  Multiplying fractions directly | Chalkboard illustration  Counters | Creative thinking  Critical thinking  Fluency |  |
|  | 3 |  |  | Reciprocals of numbers | Identifies the type of number given  Forms an equation correctly  Finds the reciprocal of the given fraction | Reads the new words given  Fluently  Writes the new words correctly | Reciprocals of simple fractions  Reciprocals of whole numbers | Think pair share  Demonstration  Group work | Identifying the types of number given  Forming equations  Finding the reciprocals  Reading the new words fluently | Charts  Work cards | Effective communication  Critical thinking  Fluently |  |
|  | 4 |  |  | Divisions of fractions by fractions | Differentiates a divisor from a dividend  Gets the reciprocal of the divisors  Multiplies the fractions directly | Pronounces the new words fluently  Spells the words correctly | Division of a fraction by the other same denominator 2/5 ÷ 1/5  Division of fractions with different denominators 2/5 ÷ ¾  Division of mixed numbers | Think pair share  Demonstration  Group work | Differiating a divisor from a devident  Getting the reciprocal of divisors  Multiplying the fractions | Charts  Work cards | Problem solving  Analytical thinking |  |
|  | 5 |  |  | Division of fractions by whole numbers and vice versa | Identifies divisors  Finds the reciprocal of the divisor and common factor  Multiplies the fractions directly | Reads the new words and structures confidently  Writes the new words and figures correctly | Division of a fraction by a whole ie; ½ ÷ 4  Division of a whole number by a fraction ie. 4 ÷ ½ | Explanation  Guided discovery  Group work | Reading the new words  Finding the reciprocals of the divisors  Multiplying the numbers directly | Charts  Work cards | Problem solving  Analytical thinking  Confidence |  |
| 11 | 1 |  |  | Simple mixed operations | Identifies the operations used in the questions  Uses BODMAS correctly  Solves the problem given according to BODMAS  Reduces to the simplest form | Describes the kinds of operations used  Reads the words and structures confidently | Addition and subtraction of simple fractions  Multiplication and division of simple fractions | Explanation  Guided discovery  Group work | Describes the operations used in the question  Solves the problem using BODMAS | Charts  Work cards | Problem solving  Analytical thinking  Confidence |  |

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