

Annual Curriculum and Pedagogical Plan

Subject- Mathematics

Class- V

Month	Unit	Topics Covered / Sub topics	No. Of periods	Innovative pedagogy	Learning Outcomes / SKILLS	Assessment tools.
April	I	<p>Number and Numerations</p> <ul style="list-style-type: none"> - Natural and Whole numbers - Numbers upto 1 lakh and extending to crore. - Place value and Face value. -Reading and writing large numbers. - Expanded form. - Comparing and Ordering of numbers. - Framing Greatest/Smallest numbers. Successor and Predecessor. - International system of numerations. - Estimation by rounding off nearest to tens, hundreds, thousands etc. 	12	<ul style="list-style-type: none"> -Playing games on whole numbers. -Place value game using digit cards 0-9. -Maths kit (buttons, digit cards, ice-cream sticks number board) - Roman numerals chart using matchsticks. - Worksheet. 	<ul style="list-style-type: none"> *Write 7 or 8-digits numbers in the Indian and the International Place Value System *Write the expanded form of numbers *Find Successor and Predecessor mentally. *Compare and order numbers. *Make large numbers using the given digits. *Students will be able to compare Indian System of Numeration and International System. * Will be able to estimate or round off numbers. * Will able to recognise number presented in Roman Numerals. 	<ul style="list-style-type: none"> Weekly worksheet. MCQ related to the concepts. Mental maths related to concepts. Formative assessment. Diagnostic Assessment. Summative assessment.

	2	<p>Roman Numerals.</p> <ul style="list-style-type: none"> -Rules for forming Roman Numerals - Writing Roman Numerals for Hindu Arabic Numerals. - Converting numbers to Roman numerals. 	5		<p>* Will able to describe and demonstrate how to convert Roman numerals.</p> <p>SKILLS: Quantitative reasoning, communication.</p>	
May	3	<p>Addition</p> <p>1. Introduction to Addition:</p> <ul style="list-style-type: none"> - Understanding the concept of addition as combining two or more quantities. - Recognizing the symbol '+' as the addition operator. - Differentiating between addends and sum <p>Addition with one, two, three digit Numbers:</p> <ul style="list-style-type: none"> - Adding single-digit numbers mentally. -Regrouping or carrying over twice in multi-digit addition. - Fill the missing numbers in addition. - Practicing addition 	9	<ul style="list-style-type: none"> - Addition and subtraction using concrete objects(icecream sticks and dice) -Addition and subtraction using number boards. -Addition and subtraction using Maths kit (Dice, number board, icecream sticks, buttons, coins, digit cards) -What makes10 ? -Tic-Tac toe.(Make 15 on 	<p>*Will able to add and sub large numbers.</p> <p>*Will able to verify answers of subtraction.</p> <p>*Develop problem solving skills.</p> <p>*apply their knowledge to solve story sums of addition and subtraction.</p> <p>*apply their knowledge in real life situation of add and sub.</p> <p>SKILLS: Problem solving, critical thinking</p>	<p>Weekly worksheet.</p> <p>MCQ related to the concepts.</p> <p>Mental maths related to concepts.</p> <p>Formative assessment.</p> <p>Diagnostic Assessment.</p> <p>Summative assessment.</p>

	4	<p>through statement sums and real-life scenarios.</p> <ul style="list-style-type: none"> -Estimating sums using compatible numbers. - Rounding numbers to simplify addition calculations. <p>Subtraction</p> <ul style="list-style-type: none"> - Introduction to Subtraction: - Understanding the concept of subtraction. - Recognizing the symbol '-'. -Differentiating between minuend, subtrahend and difference. <p>Subtraction of one, two, three digit Numbers:</p> <ul style="list-style-type: none"> - subtracting single-digit numbers mentally. -Subtraction with or without borrowing and verification of subtraction. - Fill the missing numbers in subtraction. - Statement sums of subtraction. 	9	<p>adding each side)</p> <ul style="list-style-type: none"> -Crack the code. -Mental maths of addition and subtraction. -Framing sums using given questions of addition and subtraction. - Worksheet. 		
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July	5	<p>Multiplication</p> <p>-Introduction of multiplication and recognizing the symbol ' x '</p> <p>-Multiplicand, Multiplier and Product.</p> <p>-Properties of multiplication.</p> <p>- Multiplication by 10, 100, 1000 etc.</p> <p>- Multiplication by 3 and 4 digits.</p> <p>- Statement sums of multiplication.</p> <p>Division</p> <p>-Introduction of division and recognizing of symbol ÷</p> <p>- Dividend, Divisor, Quotient and Remainder.</p> <p>-Division by 10,100,1000 etc.</p>	9	<p>-Multiplication and division using digit cards.</p> <p>-Multiplication using Lattice method.</p> <p>-Multiplication and division using maths kit.(Digit cards,number board, dice, buttons, icecream sticks)</p> <p>-Making tables patterns on number board.</p> <p>-Making tables using seeds.</p>	<p>*Multiply and Divide large numbers.</p> <p>* Will able to verify answers of division.</p> <p>* Multiply and Divide by multiples of 10's, 100's, and 1000's mentally.</p> <p>*Develop problem solving skills.</p> <p>* Apply operations (+, -,X,÷) in their day to day life.</p> <p>SKILLS: Problem solving, critical thinking.</p>	<p>Weekly worksheet.</p> <p>MCQ related to the concepts.</p> <p>Mental maths related to concepts.</p> <p>Formative assessment.</p> <p>Diagnostic Assessment.</p> <p>Summative assessment.</p>
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		<ul style="list-style-type: none"> - Division by 2 and 3 digit numbers. - Verification of division. - Statement sums of division. <p>Simplification of all four basic operations(BODMAS)</p>		<ul style="list-style-type: none"> -Mental maths related to multiplication and division. -Framing questions using given questions of multiplication and division. - Worksheet. 		
August	7	<p>Factors and Multiples.</p> <ul style="list-style-type: none"> - Factors and its properties. - Multiples and its properties. - Various types of numbers. (odd, even, consecutive, consecutive odd, consecutive even, prime and composite numbers). -Tests of divisibility. - To find all prime and composite numbers between 1 to 100. - Prime factorisation. - HCF AND LCM. - Some facts about HCF and LCM. <p>Fractions</p>	10	<ul style="list-style-type: none"> -HCF and LCM using icecream sticks and dice. -Activity using Maths kit. (Dice, buttons, icecream sticks, number board, digit cards) -Making- 'My fraction house'. -Representing Fraction using paper, Chalk and other real objects. -Making fraction model. 	<ul style="list-style-type: none"> *recognize and learn factors and multiples. *understand the real life applications of factors and multiples. *find common factors and multiples of two numbers. * Solve divisibility of smaller numbers mentally. * Calculate HCF and LCM of 2 and 3 digit numbers using Prime factorization and Long division method. *Solve word problems on relationship between HCF and LCM. *Understand the different types of 	<p>Weekly worksheet.</p> <p>MCQ related to the concepts.</p> <p>Mental maths related to concepts.</p> <p>Formative assessment.</p> <p>Diagnostic Assessment.</p> <p>Summative assessment.</p>

	8	<p>-Introduction of fraction, terms of fraction.</p> <p>-Types of fraction.</p> <p>-Fraction in lowest term or in simplest form.</p> <p>-Comparison of fraction.</p> <p>-Addition, subtraction, multiplication and division of fraction.</p> <p>-Statement sums of fraction.</p> <p>-Simplification of fraction(BODMAS).</p>	12	<p>-Fraction game using icecream sticks or buttons and dice.</p> <p>-Fraction song / poem.</p> <p>-Mental maths related to fraction.</p> <p>- Worksheet.</p>	<p>fractions</p> <p>*Write equivalent fractions</p> <p>*Reduce fractions to their lowest terms</p> <p>*Compare fractions</p> <p>*Apply four operations in fractions</p> <p>*Apply their knowledge in fractions to solve real life problems.</p> <p>SKILLS: Analytical thinking , problem solving,Quantitative reasoning</p>	
September	9	<p>Decimals</p> <p>-Introduction of decimal and decimal place value chart.</p> <p>-Types of decimal.</p> <p>-Convert unlike into like decimals.</p> <p>-Converting Decimals into fraction.</p> <p>-Converting Fractions into decimals.</p> <p>-Addition, subtraction, multiplication and division of decimals.</p> <p>- Statement sums of</p>	12	<p>-Decimals using Maths kit. (Icecream sticks, buttons, dice, digit cards)</p> <p>-Use of decimals every day while dealing with money, weight, length etc.</p> <p>-Mental maths related to decimals.</p>	<p>Student learns to-</p> <p>*Expand Decimal numbers</p> <p>*Convert Decimal into Fractions or vice versa.</p> <p>*Add, Subtract, Multiply and Divide Decimals.</p> <p>*Multiply and Divide decimals by 10's, 100's and 1000's mentally.</p> <p>*learn about the different operations on the decimal numbers.</p>	<p>Weekly worksheet.</p> <p>MCQ related to the concepts.</p> <p>Mental maths related to concepts.</p> <p>Formative assessment.</p> <p>Diagnostic Assessment.</p> <p>Summative</p>

	10	<p>decimals.</p> <p>-Simplification of decimals(BODMAS)</p> <p>- Rounding off decimal numbers.</p> <p>Money</p> <p>-Introduction of money.</p> <p>- Conversion of rupees into paisa.</p> <p>- Conversion of paisa into rupees.</p> <p>-Unitary method.</p> <p>-Preparing bills.</p>	7	<p>- Money activity using fake notes and coins.</p> <p>-Craft a water bottle piggy bank.</p> <p>- Billing activity.</p> <p>- Shop area activity.</p> <p>-Mental maths related to money.</p>	<p>*Able to use decimal in day to day life.</p> <p>*Use the unitary method.</p> <p>* Student learns to</p> <p>*Check Bills for errors.</p> <p>*Prepare Correct Bills for the given Data.</p> <p>* Read and Check Bills in their Daily life.</p> <p>*Students will learn the values and names of coins.</p> <p>-Students will be able to learn how to add and subtract money in real world situations.</p> <p>-Students will be able to learn how to make change with money.</p> <p>SKILLS: problem solving, critical thinking</p>	assessment.
October	11	<p>Profit and Loss</p> <p>-Introduction of profit and loss.</p> <p>-Cost price and selling</p>	7	<p>-Profit and Loss activity using wrappers and fake notes and coins.</p>	<p>Student learns to</p> <p>*Find Profit and Loss for the given S.P. and C.P.</p> <p>* Apply Formulae</p>	<p>Weekly worksheet.</p> <p>MCQ related to the</p>

	12.	<p>price.</p> <ul style="list-style-type: none"> - Finding profit and loss. - Statement sums. <p>Percentage</p> <ul style="list-style-type: none"> -Introduction of percentage and recognizing symbol % -Convert fraction into percentage and vice-versa. -Finding percentage of given numbers. 	9	<ul style="list-style-type: none"> -Shop area for CP and SP activity. - Finding % using old reporter cards. - Finding sale % using shopping vouchers. -Percentage activity using Maths kit. - Mental maths related to profit and loss. - Mental maths related to percentage. - Worksheet. 	<p>for finding Profit and Loss percent.</p> <ul style="list-style-type: none"> *Solve Word problems on Profit and Loss. *Student learns to Convert Percentage into Decimals and Fractions or viceversa. *Find value of the percentage of given Quantity. * Find one Quantity as percentage of total Quantity. *Apply percentage in their day to day life.* Apply Profit and Loss percent in their day to day life.SKILLS: Problem solving ,Analytical thinkingThinking capacity. 	<p>concepts.</p> <ul style="list-style-type: none"> Mental maths related to concepts. Formative assessment. Diagnostic Assessment. Summative assessment.
November	13	<p>Measurement</p> <ul style="list-style-type: none"> - Measures of length, 	14	<ul style="list-style-type: none"> -Measure things in your bag using 	<p>Student learns to</p> <ul style="list-style-type: none"> *Convert Higher 	<p>Weekly worksheet.</p>

	14	<p>mass and capacity.</p> <ul style="list-style-type: none"> - Conversion of units. - Addition, subtraction, multiplication and division of units. - Estimate measures units. - Statement sums of length, mass and capacity measures. - Measure temperature. <p>Speed, Distance and time</p> <ul style="list-style-type: none"> - Introduction of Speed , Distance and Time - Formula for finding speed, distance and time. 	7	<p>ruler.</p> <ul style="list-style-type: none"> - Measure things around you using handspan, measuring tape, ruler etc... - Measurement activity using Maths kit. - Counting steps from main gate of school to classroom. - Capacity measuring activity using different containers etc. - Finding time taking to reach school from home. - Mental maths related to Measurement and speed, distance and time. - Worksheet. 	<p>units into Lower units or vice versa.</p> <ul style="list-style-type: none"> *Apply Different operations (+, -, X, ÷) on Metric measures. *Relate Standard unit to other unit. * Apply Metric measures in their Day to Day life. *Will able to describe the things around them in accurate, standard ways that others can understand. *Students will be able to tell (read) time on digital and analog (traditional) clocks. *Students will understand the break down of hours into minutes. *Students will perform mathematical operations on their clocks; adding and subtracting time in 60 and 30 minute values. *Convert 12-Hour clock time into 24-Hour clock time or 	<p>MCQ related to the concepts.</p> <p>Mental maths related to concepts.</p> <p>Formative assessment.</p> <p>Diagnostic Assessment.</p> <p>Summative assessment.</p>
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					<p>vice versa.</p> <p>* Apply four operations (+, -, X, ÷) involving time.</p> <p>*Find Time intervals between given times.</p> <p>SKILLS: Analytical thinking, Quantitative reasoning</p>	
December	15	<p>Basic geometrical concepts.</p> <ul style="list-style-type: none"> - Lines and related concept. - Parallel and perpendicular lines. - Circle and its parts. - Construction of circle. - Angles and its types. - Construction of angles. - Shapes and patterns. <p>Triangles and Quadrilaterals.</p> <ul style="list-style-type: none"> - Collinear and non collinear points. - Triangles and its types. -Classification of triangles according to 	9	<ul style="list-style-type: none"> - Activity of finding examples of line, ray and line segments in their surroundings. - Find 5-5 examples of parallel lines and perpendicular lines from their surroundings. - Find and tell objects around them that makes angles. -Shapes activity. -Patterns activity using Maths kit (number board, icecream sticks, buttons, coins) - Classify triangle worksheet. 	<p>Student learns to Define and Draw</p> <ul style="list-style-type: none"> a) Point, Line Segment, A line b) Parallel and Perpendicular lines. <p>Identify different types of angles.</p> <ul style="list-style-type: none"> * Measure angles using Protractor. *Construct angles and circle using Protractor, Compass and Ruler. *Identify symmetrical figures. *Draw lines of symmetry *Identify and continue patterns. *Identify patterns 	<p>Weekly worksheet.</p> <p>MCQ related to the concepts.</p> <p>Mental maths related to concepts.</p> <p>Formative assessment.</p> <p>Diagnostic Assessment.</p> <p>Summative assessment.</p>
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		<p>sides and angles.</p> <p>- Quadrilaterals and its types.</p>		<p>- Classify quadrilaterals worksheet.</p> <p>-Menta maths regarding patterns and shapes.</p>	<p>created by turns</p> <p>*Students will be able to describe and classify the properties of, and relationship between plane and solid geometric figures.</p> <p>* Students will able to use the knowledge that the sum of angles of any triangle is 180 and the sum of angles of any quadrilateral is 360 to solve problems.</p> <p>*Apply the properties and characteristics of all triangles to solve real-world problems.</p> <p>*Students will determine the similarities and differences between quadrilaterals by looking at their side, angle, and diagonal measures</p> <p>SKILLS: Creativity, Observation</p>	
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January	17	<p>Area, Perimeter and Volume.</p> <p>-Introduction.</p> <p>-Area and Perimeter of rectangle, square and triangle.</p> <p>-Volume of cube and cuboid.</p>	12	<p>-Finding perimeter , area of the things around you.</p> <p>- Making net of cube.</p> <p>- Making net of cuboid.</p> <p>- Finding volume of a cube and cuboid box.</p> <p>- Mental maths.</p> <p>- Worksheet.</p>	<p>*Recognise area, perimeter and volume.</p> <p>*Use formulae to calculate area, perimeter and volume.</p> <p>* Able to apply their knowledge in real-life applications.</p> <p>SKILLS: Observation and Regonition.</p>	<p>Weekly worksheet.</p> <p>MCQ related to the concepts.</p> <p>Mental maths related to concepts.</p> <p>Formative assessment.</p> <p>Diagnostic Assessment.</p> <p>Summative assessment.</p>
February	18	<p>Data Handling</p> <p>-Introduction.</p> <p>-Pictograph.</p> <p>-Bar-graph.</p>	7	<p>-Graphing.</p> <p>- Worksheet.</p>	<p>Student learns to</p> <p>*Read and understand Pictograph and Bar Graph.</p> <p>*Draw a pictograph or Bar graph for the given information.*Apply Bar graph in their day to day life*</p> <p>Answer questions for the given Bar graph and pictograph.SKILLS: power of imagination, analytical thinking.</p>	<p>Weekly worksheet.</p> <p>MCQ related to the concepts.</p> <p>Mental maths related to concepts.</p> <p>Formative assessment.</p> <p>Diagnostic Assessment.</p> <p>Summative assessment.</p>