

Annual Curriculum and Pedagogical Plan

Subject- Mathematics

Class- IV

Month	Unit	Topics Covered / Sub topics	No. Of periods	Innovative Pedagogy	Learning Outcomes / SKILLS	Assessment tool
April	I	<p>Number System</p> <ul style="list-style-type: none"> - Natural and Whole numbers - 5 and 6 digit numbers - 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, 	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. 	<ul style="list-style-type: none"> *Write 5 or 6-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 	<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>thousands etc.</p> <p>Roman Numerals.</p> <p>-Rules for forming Roman Numerals</p> <p>- Writing Roman Numerals for Hindu Arabic Numerals.</p> <p>- Converting numbers to Roman numerals.</p>	5	- Worksheet.	<p>and International System.</p> <p>* Will be able to estimate or round off numbers.</p> <p>* Will able to recognise number presented in Roman Numerals.</p> <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> <p>- Understanding the concept of addition as combining two or more quantities.</p> <p>- Recognizing the symbol '+' as the</p>	9	<p>- Addition and subtraction using concrete objects(icecream sticks and dice)</p> <p>-Addition</p>	<p>*Will able to add and subtract large numbers.</p> <p>*Will able to verify answers of subtraction.</p> <p>*Develop problem solving skills.</p>	<p>Weekly worksheet.</p> <p>MCQ related to the concepts.</p> <p>Mental maths related to concepts.</p> <p>Formative</p>

		<p>addition operator.</p> <ul style="list-style-type: none"> - 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 through statement sums and real-life scenarios. -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 		<p>and subtraction using number boards.</p> <ul style="list-style-type: none"> -Addition and subtraction using Maths kit (Dice, number board, icecream sticks, buttons, coins, digit cards) -What makes10 ? -Tic-Tac toe.(Make 15 on adding each side) -Crack the code. -Mental maths of addition and subtraction. 	<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>assessment.</p> <p>Diagnostic Assessment.</p> <p>Summative assessment.</p> <p>Weekly worksheet</p>
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	4	<p>subtraction.</p> <ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> -Framing sums using given questions of addition and subtraction. - Worksheet. 		
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July	5	<p>Multiplication</p> <ul style="list-style-type: none"> -Introduction of multiplication and recognizing the symbol ' × ' -Multiplicand, Multiplier and Product. -Properties of multiplication. - Multiplication by 10, 100, 1000 etc. - Multiplication by 3 and 4 digits. - Statement sums of multiplication. 	9	<ul style="list-style-type: none"> - Multiplication and division using digit cards. - Multiplication using Lattice method. - Multiplication and division using maths kit.(Digit cards,number board, dice, buttons, icecream sticks) -Making tables patterns on number board. -Making tables using seeds. 	<ul style="list-style-type: none"> *Multiply and Divide large numbers. * Will able to verify answers of division. * Multiply and Divide by multiples of 10's, 100's, and 1000's mentally. *Develop problem solving skills. * Apply operations (+, -,X,÷) in their day to day life. <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>
	6	<p>Division</p> <ul style="list-style-type: none"> -Introduction of division and recognizing of symbol ÷ - Dividend, Divisor, Quotient and Remainder. -Division by 10,100,1000 etc. - Division by 2 and 3 digit numbers. - Verification of division. - Statement sums of division. 	9			

		Simplification of all four basic operations(DMAS)		<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 	14	<ul style="list-style-type: none"> -HCF and LCM using icecream sticks and dice. -Activity using Maths kit. <p>(Dice, buttons, icecream sticks, number board, digit</p>	<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 	<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>

September	8	<p>divisibility.</p> <ul style="list-style-type: none"> - To find all prime and composite numbers between 1 to 100. - Prime factorisation. - HCF AND LCM. - Some facts about HCF and LCM. <p style="text-align: center;">Fractions</p> <ul style="list-style-type: none"> -Introduction of fraction, terms of fraction. -Types of fraction. -Comparison of fraction. -Ordering of like fraction. -Addition, subtraction of like fractions. -Statement sums of fraction. 	10	<p>cards)</p> <ul style="list-style-type: none"> - Representing Fraction using paper, Chalk and other real objects. -Making fraction model. -Fraction game using 	<p>smaller numbers mentally.</p> <ul style="list-style-type: none"> * Calculate HCF and LCM of 2 and 3 digit numbers using Prime factorization and Long division method. *Understand the different types of fractions *Write equivalent fractions *Compare fractions *Ordering of fraction. *Apply their knowledge in fractions to solve real life problems. <p>SKILLS: Analytical</p>	assessment.
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				<p>icecream sticks or buttons and dice.</p> <p>-Fraction song / poem.</p> <p>-Mental maths related to fraction.</p> <p>- Worksheet.</p>	<p>thinking , problem solving, Quantitative reasoning</p>	
	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>-Addition, subtraction of decimals.</p> <p>- Statement sums of decimals.</p>	10	<p>-Decimals using Maths kit.</p> <p>(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</p>	<p>Student learns to-</p> <p>*Expand Decimal numbers</p> <p>*Convert Decimal</p> <p>*Add, Subtract Decimals.</p> <p>*Able to use decimal in day to day life.</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>

October	10	<p style="text-align: center;">Money</p> <ul style="list-style-type: none"> -Introduction of money. - Conversion of rupees into paisa. - Conversion of paisa into rupees. -Unitary method. -Preparing bills. 	7	<p style="text-align: center;">decimals.</p> <ul style="list-style-type: none"> - Money activity using fake notes and coins. -Craft a water bottle piggy bank. - Billing activity. - Shop area activity. -Mental maths related to money. 	<ul style="list-style-type: none"> * Student learns to *Check Bills for errors. *Prepare Correct Bills for the given Data. * Read and Check Bills in their Daily life. *Students will learn the values and names of coins. -Students will be able to learn how to add and subtract money in real world situations. -Students will be able to learn how to make change with money. <p style="text-align: center;">SKILLS: problem</p>	
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					solving, critical thinking	
	11	Measurement <ul style="list-style-type: none"> - Measures of length, mass and capacity. - Conversion of units. - Addition, subtraction, multiplication and division of units. - Estimate measures units. - Statement sums of length, mass and capacity measures. - Measure temperature. 	14	<ul style="list-style-type: none"> - Measure things in your bag using ruler. - Measure things around you using handspan, measuring tape, ruler etc... - Measurement activity using Maths kit. 	<ul style="list-style-type: none"> Student learns to *Convert Higher units into Lower units or vice versa. *Apply Different operations (+, -, X, ÷) on Metric measures. *Relate Standard unit to other unit. * Apply Metric measures in their Day to Day life. 	<ul style="list-style-type: none"> Weekly worksheet. MCQ related to the concepts. Mental maths related to concepts. Formative assessment. Diagnostic Assessment. Summative assessment. Weekly worksheet
November	12	Measurement of Time <ul style="list-style-type: none"> -Time in hours , minutes and seconds 	6	<ul style="list-style-type: none"> -Digital clock 	<ul style="list-style-type: none"> *Students will be able to tell (read) 	

r	13	<p>-Conversion of time</p> <p>-Addition and subtraction of time</p> <p>The Calendar</p> <p>-Days in month</p> <p>-Leap year</p>	4	<p>with 24 hrs time</p> <p>-Calendar of the class</p>	<p>time on digital and analog (traditional) clocks.</p> <p>*Students will understand the break down of hours into minutes.</p> <p>*Students know how to use and interpret calendars, as well as how to read and write dates.</p> <p>*Students will learn about the relationship between days, weeks, months, and years.</p>	
December	14	<p>Basic geometrical concepts.</p> <p>-Symmetry</p> <p>- Lines and related concept.</p> <p>- Circle and its</p>	10	<p>- Activity of finding examples of line, ray and line segments in their surroundings</p>	<p>Student learns to Define and Draw</p> <p>a) Point, Line Segment, A line</p>	<p>Weekly worksheet.</p> <p>MCQ related to the concepts.</p> <p>Mental maths</p>

		<p>parts.</p> <ul style="list-style-type: none"> - Construction of circle. - Angles and its types. - Shapes (2D and 3D shapes) and patterns. 		<p>.</p> <ul style="list-style-type: none"> - Find and tell objects around them that makes angles. -Shapes activity. -Patterns activity using Maths kit (number board, icecream sticks, buttons, coins) -Menta maths regarding patterns and shapes. 	<p>Identify different types of angles. *Construct circle using Compass and Ruler. *Identify symmetrical figures. *Draw lines of symmetry *Identify and continue patterns. *Identify patterns created by turns *Students will be able to describe and classify the properties of, and relationship between plane and solid geometric figures.</p> <p>SKILLS: Creativity, Observation</p>	<p>related to concepts.</p> <p>Formative assessment.</p> <p>Diagnostic Assessment.</p> <p>Summative assessment.</p>
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January	15	<p>Area and Perimeter</p> <p>-Introduction.</p> <p>-Area and Perimeter of rectangle, square.</p>	10	<p>-Finding perimeter , area of the things around you.</p> <p>- Making net of cube.</p> <p>- Making net of cuboid.</p> <p>- Mental maths.</p> <p>- Worksheet.</p>	<p>*Recognise area, perimeter.</p> <p>*Use formulae to calculate area, perimeter.</p> <p>* Able to apply their knowledge in real-life applications.</p> <p>SKILLS: Observation and Recognition.</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> <p>Weekly worksheet</p>
February	16	<p>Data Handling</p> <p>-Introduction.</p> <p>-Pictograph.</p> <p>-Bar-graph.</p> <p>-Pie chart</p>	7	<p>-Graphing.</p> <p>- Worksheet.</p>	<p>Student learns to</p> <p>*Read and understand Pictograph and Bar Graph and Pie Chart.</p> <p>*Draw a pictograph , pie chart or Bar graph for the given information.</p> <p>*Apply Bar graph in their day to day life*</p> <p>Answer</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>

					questions for the given Bar graph , Pie chart and pictograph.S KILLS: power of imagination, analytical thinking	
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