Split up Syllabus

CLASS V

MONT	SYLLABUS	LESSON	CONCEPT/KEY	SUGGESTED ACTIVITIES	EXPECTED LEARNING	TLM/	VALUES/SKILLS	PERIOD
Н			AREAS		OUTCOMES	RESOURCES		
April/	Geometry	The	Recapitulation	 Make different sea 	Draws different	-Pictures of	Recapitulates the	
May	Shapes &	Fish	of work done in previous	animals using various shapes	figures using different shapes.	different types of boats	various shapes/number	26
	Spatial	Tale	classes	Collection of pictures of	 Reads and writes 		operation and units	
	Understanding		<u>Geometry</u> (Shapes &	different types of boats • Find the speed and	large numbersCompares large	-Indian & International Place	of capacity /weight/length, it	
	Numbers		spatial	fare for one round trip.	numbers	value chart	conversion.	
	Numbers And		understanding)	Representing numbers	 Adds, subtracts, 		Develops	
	Operations		Understanding of shapes	on a Place value chart (Indian & International)	divides and	-50 grams/100 grams/500 grams/1	Creative thinking,	
			of shapes Numbers	Numeral and number	multiplies large numbers	kilogram weights		
	Measurement		Numbers and	names	Round numbers to	eg. a rre.g.res		
	(Weight,		Operations	 Short form/ expanded 	nearest tens	-Measuring tape		
	Capacity, Time)		Estimation and	form of numbers • Formation of smallest	,hundreds and	-Measuring cylinder		
			comparisonUnderstanding	and greatest number using	thousands	-ivieasuring cylinder		
			of large	3,4 & 5 digits	 Understands various units of 	-Flash cards of		
			numbers	• Compare numbers (> =	measurement	numbers		
			Basic	<)	Converts higher	Internat recovered		
			Operations of	 Rounding of numbers to nearest tens, hundreds 	units to lower units	-Internet resources		
			large numbersRounding of	and thousands	and vice versaUnderstands the	-Worksheets		
			numbers	 Word problems on 	relation ship			
			<u>Measurement</u>	addition and subtraction,	between speed,			
			<u>s</u>	measurement- length, weight, capacity, speed,	distance and time.			
			(Weight, Capacity,	distance and time.	Understands			
			Time)	 Conversion of units 	concept of loan, interest and savings			
			 Understanding 	Mock fish market	Solves word			
			the units of	showing buying and selling of fish	problems related to			
			weight &	OI IISTI	large numbers, time			

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			capacity, time& distance and differences between them. Understanding the conversion of units Knowledge about different kinds of water transport system; its speed, capacity to carry and time to cover certain distances. Solving word problems	Mock bank showing borrowing of money, interest and savings. [prepare simple questions on conversion /addition /subtraction/multiplication of Unit and ample questions for practice should be given to students]. Follow up the learning levels of students. Student who lacks basic understanding of the concept(s) be given extra support. Note-Integrated with "What if it finishes?" Looking Around class 5	•	speed and capacity. Integration with EVS and language(s) - a fairly good idea about:- i) aquatic life ii) Types of fishes. iii) Water transport system in river/lake. iv) Idea of local markets. V) Recitation/narration of poems / stories on fish.			
April/ May	Geometry Shapes & spatial understanding • Gets the feel of an angle through observation and paper folding • Identifies right angles in the environmen	Shapes and Angles	 Understanding of ray, line, line segment Understanding the concept of an angle Knowledge about different plane figures Knowledge about different types of angles Ability to 	 Make shapes using match sticks, understand that polygon with same sides have different shapes because of different angles Make an angle tester using card board and drawing pin Look for the different angles in and around class/home. Angles made by hands of a clock 	•	Understands the concept of a ray, line, line segment Recognizes plane figures Distinguishes between corners, edges, straight and curved edge. Understands the meaning of an angle and comparison of angles.	Geometrical instruments- Protractor, Scale, Divider Visuals of Yoga postures Coloured paper Clock Sticks	Reflect upon the ingles and sides of a given shapes. Uses protractor and other instrument to measure the same.	9

	t Classifies angles into right, acute and obtuse angles Represents right angle, acute angle and obtuse angle by drawing and tracing	measure angles using a protractor and degree clock • Ability to draw angles of given measures	 Angles in names Paper folding to show different angles (Paper aero plane) Angles in Yoga postures Observe bridges and tower [diagonal beams which divide the shapes into triangle. Constructing angles of given measurement using Protractor Formation of angles by using different objects. Formation of angles using different gestures of body and BALA. Making different shapes with cycle tube and match stick. Making a paper degree clock Worksheets and Practice exercises for drill work 	•	Knows about different types of angles. i.e. (Right angle /less than right angle /more than right angle.) Classifies angles as acute, obtuse and right angle Knows why triangles are used in towers and bridges etc. Uses degree clock and protractor to draw and measure different angles. Solves simple problems related to the measurement of different angles in day today activity. Note- Integrated with "Up You Go" Looking Around Class 5			
June	Measurement Length Determine the area and perimeter of simple How many Square ?		 Drawing shapes for the given number of squares on a graph paper/square grid. Finding area and perimeter by placing things on a square 	•	Understands the concept of area and perimeter. Measures area of regular and irregular shapes using 1cm square paper or geo-	Graph paper/ Square grid Objects from classroom environment	Able to measure the perimeter and area of regular and irregular figure. Develop concepts and discuss about	8

geometric	cal	and irregular figures Comparison of area and perimeter Ability to modify basic shapes to create different tiling shapes Solving problems based on area and perimeter	grid/graph paper. Finding area/perimeter of Maths notebook, pencil box, stamps etc. Measuring the perimeter of irregular shapes using thread. Creating new shapes out of a square (tile) to make floor patterns. Complete tiling patterns. Visit to a mathematical garden Draw rectangles of 12 squares in different ways on a dot grid. Find the perimeter. Make shapes with straight lines to cover the given area on a graph paper. Puzzles with five squares (12 different shapes). Find perimeter of each and compare them. Arrange the 12 pieces in a 10X6 rec. Make your own tile Worksheets and Practice exercises for drill work	•	board. Derives formulae for finding the perimeter and area of given figure. Determines the perimeter and area of given figures with given dimensions and express its relevant unit. Solves simple problems related to the measurement of area and perimeter in day today activity. Integrated with drawing	Measuring tape/scale Visuals of tile patterns Puzzles Internet resources	arious figure.	
July Numbers Fractional Numbers Finds the	Parts and	Understanding of parts of a whole and a collection - ½	 Draw our national flag. Write fraction for the different colours. 	•	Identifies fraction of part of a whole and of a collection	Cut outs of different shapes	Develops a clear idea of fractional number and its	24

fractional part of a collection	wholes ,¼,¾ etc • Understanding of different	 Design a flag with logo for your Maths club. Paper folding activities Uses active vocabulary related to fractions in bottle caps Collection of ticks/marbles/toffees/ bottle caps Able to represent
 Compares fractions 	types of fractions	to show different parts his/her fractional number in of a whole/equivalent conversation. Coloured paper various forms.
 Identifies equivalent fractions 	Understanding of equivalent fractions	fraction • Fraction wall to show equivalent fractions • Understands the concept of whole numbers and part of
 Estimates the degree of 	Ability to generate equivalent	 Make a magic top. Divide a rectangle into 6 parts in different the numbers. Understands fraction as a division Internet resources
closeness of a	fractions • Conversion of	ways. • Take a square grid • Understands the term equivalent Flash cards
fraction to known fractions	improper fractions to mixed	colour/make design, write fraction for the coloured part fractions Generates fractions equivalent to a given Worksheets
• (1/2,1/4,3/ 4)	fractions and vice versa	 Part/fraction of a collection fraction Understands Chapati/Pizza/ Apple
	Comparison of fractionsAbility to find	 Divide the given shapes in equal parts in different ways different type of fractions- Games/Puzzles Like/Unlike
	fractional part of a number	The colouring circle game fractions, Unit proper
	Solving problems involving	 Paper folding/cutting and Improper the Roti/pizza— fractions, mixed equivalent fractions
	fractional numbers	 Flash cards with collection and partition Compares fractions Converts improper
		of objects e.g. pencils, erasers, books, fruits numerals and vice
		etc. • Use concrete objects such as marbles, sticks, part of a
		bottle caps etc to show equivalent fractions • Make a time table of understanding of
		your daily routine. Write a fraction to Understanding of the label o
		show what part of a denominators

				day is spent for each activity?/ Show different activities of a day on a paper strip with different colours Games and puzzles Quiz Preparing vegetable/grocery bills Worksheets Word problems involving fractions from daily life activities. Worksheets and Practice exercises for drill work Note- Integrated with "Super Senses" Page 11, Looking Around Class 5	•	10,100 or 1000. Makes design and shapes by paper folding (halves, quarter etc.) Solves simple problems related to the fractional numbers in our day to day activities.			
August	Geometry Shapes & spatial understanding • Explores intuitively rotations and reflections of familiar 2-D shapes • Explores intuitively symmetry in familiar 3-D shapes	Does it look the same?	 Understanding of geometrical patterns Understanding of symmetrical and nonsymmetrical shapes Ability to generate number /geometrical patterns Solving problems related to patterns 	 Make a pattern from a drop of colour Drawing the other mirror half of the given picture Mirror game (Putting the mirror on different places on figures and drawing the shapes obtained) Distinguish symmetrical and asymmetrical figures from the given figures/objects 	•	Observes, describes and continues simple geometrical patterns. Identifies symmetrical and non-symmetrical shapes, alphabets etc. Discovers and narrates simple characteristics of shapes. Identifies symmetry and shapes of design using the idea of	Mirror Flash cards of number/geometrical patterns Cut outs of shapes/alphabets/numbers	Develops logical Thinking. Generates patterns depicting two limensional and three dimensional shapes.	8

			related to multiples and factors	 Make factor trees for the given number Puzzles Arranging bangles into equal groups possible for a given no. of bangles. For ex. 6, 1X6, 2X3, 3X2, 6X1 List the factors of given two no. and write the common factors in the common region On a 1 to 100 number grid colour multiples of 2 with red, 3 with blue and 4 with yellow. Pick the numbers which have all the three colours(Prime and composite numbers) Worksheets and Practice exercises for drill work 	 Sorts out the prime and composite numbers that come between the given numbers. Finds factors and multiples of a given numbers. Solves simple problems related to multiples and factors in day today activities. 			
Septe mber	Patterns Identifies patterns in square numbers, triangular numbers Relates sequences of odd numbers between	Can you see the pattern ?	 Understanding of patterns Ability to make patterns 	 Observe the patterns on gift wrappers/cloth/and try to deduce the rule. Make a vegetable block and using colours print on paper/cloth taking ¼, ½turns. (clockwise/anticlockwise) 	unit which generates the pattern. • Makes patterns with numbers and letters.	Samples of patterns Magic square/ magic triangle Printing blocks Internet resources Worksheets	Identification of various number patterns.	12+8

conse square numb • Makes borde strips tiling patter	ers s r and		 Observe the rule in the given patterns and complete the pattern using the rules. [Magic square, Magic Hexagon, number and number (change in order of number in the addends) Palindromes, Magic calendar etc.] Worksheets and Practice exercises for drill work 	•	Applies the knowledge to form pattern. Integrated with drawing			
Octobe r Shapes & spatial understan • Intuiti idea o map • Readii maps calcula distan	g Your Way ding we f a	 Knowledge and understanding of reading maps Understanding of directions Understanding of scale of a map 	 Finding the location of Agra from Delhi in the map of India. Take a map of your city and tell the location of one locality to others and its associated objects like park, hospital, temple etc. Drawing a map on the floor and ask the children to stand on the map and saying the location of different things around them using the words towards north, in the east etc. Enlarging or reducing of pictures or maps on graph paper, the class room floor, the mud 		 Is able to read a map. Understands the need of a scale of a map used to locate the given area. Develops the concept of enlarging/reducing the area in the given map. Understands the four directions and is able to locate the given area in the map. Draws conclusions and inferences from the map. Converts one unit of length to 	Map of India Map of Delhi Map of World Graph paper Compass needle Floor maps Layout plans	Develops ability to read map and understands the scales.	16

				ground etc. Finding actual (approximate) distance between cities with the help of political maps. Drawing map of your class room and primary wing and expressing the different objects e.g. black board, window, door, display board etc Worksheets and Practice exercises for drill work Note- Integrated with "Whose Forests" Page 188, Looking Around, class 5	another unit of length. Compares data and solves simple problems using maps.	
Novem	Geometry Shapes & spatial understanding • Gets the feel of perspective while drawing a 3-D object in 2-D • Makes the shapes of cubes, cylinders and cones using nets especially	Boxes and Sketche s	 Understanding of 2 dimensional and 3 dimensional shapes Visualization of 3 dimensional shapes and its representation in 2 dimensional Ability to differentiate between deep drawing and 	 Counting of faces, edges and corners of a cube/cuboid. Finding the area of each face of the cube/cuboid. Making a list of things which look like a cube/cuboid in their surroundings. Practicing to visualize the net of box, to think of how it looks when flattened, and also to check which nets do not make a box. 	 Understands the concept of 2 dimensional and 3 dimensional shapes Understands deep drawing (the 3 dimensional perspective drawing. Differentiates between the 2-dimensional figures. Solves simple problems in daily life situation based on 2-dimensional and 3 dimensional shapes. Dice Model of a cube/cuboid Cartons/boxes/matc h box Chart paper Chart paper 	2

November	designed for this purpose Fractional numbers Uses decimal fractions in the context of units of length and money Expresses a given fraction in decimal notation and vice versa	Tenths and Hundre dths	 Understanding of decimals Understanding the basic operations of decimals Understanding of relationship between measures(Km/m/cm/mm) Conversion of higher units into mower units Conversion of decimals into fractions and vice versa Ability to add and subtract decimals 	 Making of cubes/cuboids/cylinder etc using dice, empty match boxes and thick papers. Drawing front view, side view and top view of given models, objects etc. Worksheets and Practice exercises for drill work Integrated with drawing Measure the length of different things in mm and cm like notebook, pencil, eraser, pen, desk etc. Convert cm into mm and vice versa Measure the height of boys and girls in the class/height of family members Measure the length and width of currency notes of different denominations and write them in mm and cm. With of graph paper, teacher will explain 	 Develops understanding of decimals through fractions with denominators 10 and 100 Converts a decimal into fraction and vice versa. Expresses a given measurement in higher or lower units. Derives formulae for finding the decimal and percentage. Converts a given measurement in higher or lower units. Measures 	Decimal place value chart Scale/ Measuring tape Graph paper Newspaper Internet resources Worksheets Price tags	Relates fractional number and concept of decimal. Learns conversion of ecimals. Use of graph aper.	15
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			Measurement of temperature Problem solving	decimals, fractions and relation between them. Represent the given decimal on a square grid/graph paper Find the value of currency of other countries in Indian currency. Find the maximum and minimum temperatures of different cities and find their differences too Collect the price tags of objects/items. Observe the decimal notation of Rupees and Paisa. Teacher explains the hundredths place. Create a market scene. Buying and selling things will give an understanding of money transaction. Worksheets and Practice exercises for drill work
Decem ber	Measurement Determines the area and perimeter of simple geometrical figures	Area and its Bounda ry	 Understanding of concept of area and perimeter. Understanding of units of area and perimeter. Ability to 	 Measure the length and breadth of the given things and finding their area and perimeter. Measure the length and breadth of the given things and finding their area and perimeter. Measure the length meaning of tields (area) and fields (area) and fences (perimeter/bou ndary). Understands the meaning of tields (area) and fences (perimeter/bou ndary). Understands the meaning of tields (area) and fences (perimeter/bou ndary). Understands the meaning of tields (area) and fences (perimeter/bou ndary). Understands the meaning of tields (area) and fences (perimeter/bou ndary). Understands the meaning of tields (area) and fences (perimeter/bou ndary). Worksheets

•	compute area and perimeter of regular and irregular shapes. Solving problems based on area and perimeter.

- birthday/greeting card and find its area and perimeter.
- Finding the perimeter and area of class-room, display board, black board etc.
- Draw two squares (one is double of the other)
 Find their perimeter and area and compare too.
- Draw different shapes by using a thread of fixed length. (Perimeter same but area is different).
- Take a drawing sheet and find its area and perimeter. Then cut it into small strips. Join the strips to form a belt and find the area and perimeter. (Same area can have different perimeter.)
- Make all possible rectangles and squares with the given number of squares
- Worksheets and Practice exercises for drill work

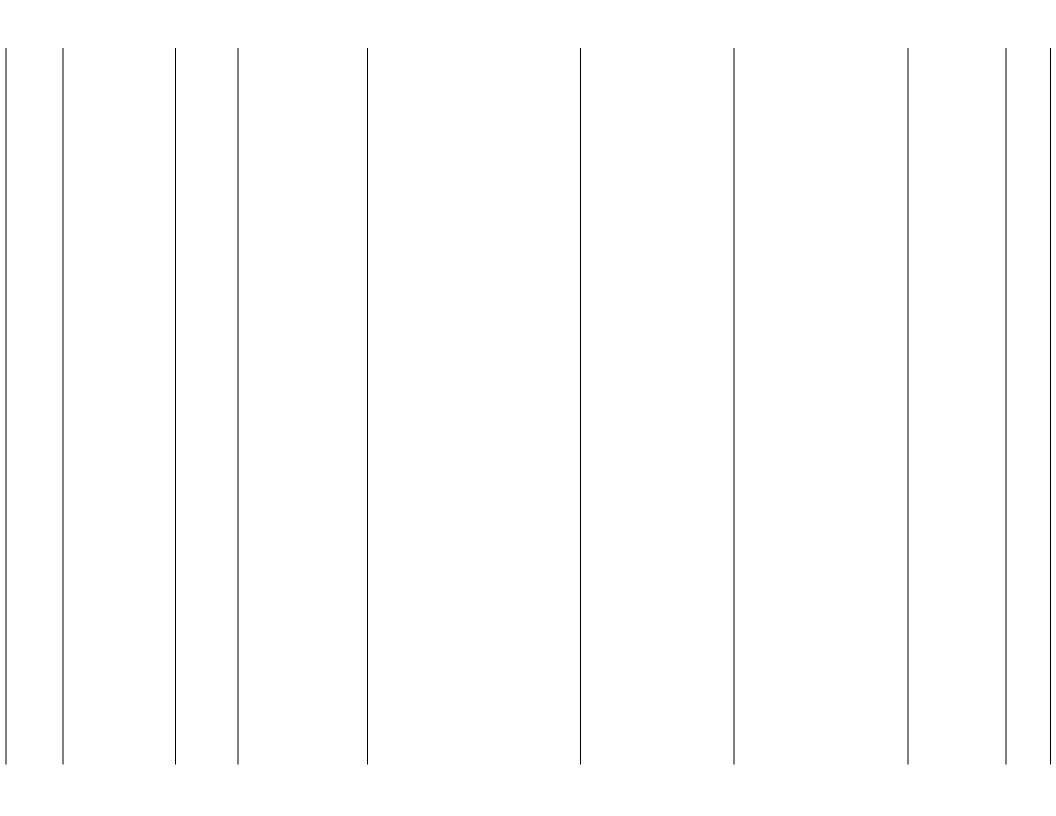
- sum of the sides of the given figure.
- Measures the area of regular and irregular shapes using 1cm square paper or geoboard.
- Derives formulae for finding the perimeter and area of a square or rectangle.
- States the unit of area and perimeter.
- Solves simple problems related area and perimeter.
- Understands that things of same area can have different perimeters.

y Coll dim qua data Rep in fo tab Dra graj pict	lects two nensional antitative a oresents data form of a	Smart Charts	 Understand the graphical representation of data (bar graph, pie chart) Ability to represent data in tabular form Ability to interpret data Solve word problems 	 by students to commute to school Collect the strength of students in classes I to V of primary section and find the total strength. Which class has the maximum/minimum strength? Observe the 1/2 an hour TV 	•	Collects and records data Represents the data in tabular form or bar graph. Understands fractions through chapatti chart or pie chart. Draws conclusions and inferences from the data. Compares the data Solves simple problems using charts/data.	Newspaper to collect economic data, survey analysis Family details Internet resources Worksheets	Recognitio n Observatio n Classificatio n Collection of data Interpretati on Able to depict fact in pictorial /graphical manner.	10
Januar Nur	mbers	Ways		Around, class 5	•	Knows the properties of multiplication. Multiplies 2 or 3	Objects like erasers,	Estimation.	17

y(Cont) Numbers a Operations Appred the rol place win addissubtra and multip on alogari Uses informand standadivisio alogari	multipl y and divide value tion, ction licati ithms	•	Understanding of different ways of multiplication Knowledge of terms used in multiplication and division (Multiplicand, multiplier and product; divisor, dividend and quotient) Understanding of properties of multiplication and division Solving word problems based on multiplication and division	•	Multiply any two numbers in different ways by breaking method and column method. Determine the division and multiplication facts of a given number Problem sums related to daily life. Collection of simple objects like pencils, eraser, sharpener etc and arranging them in different groups. Do sums of division and check your result by multiplication. Give a situation and ask students to frame a question related to the concept of division and multiplication Mock shopping situations created. (for mental calculations and to know the operation involved) Worksheets and Practice exercises for drill work	•	digit numerals by another 2 Or 3 digit numeral. Solves problems involving multiplication Knows properties of division. Divides a numeral by one or two digit numeral Solves word problems involving division. Understands that multiplication is repeated addition and uses the symbol for multiplication. Understands that division is a process of equal distribution of sharing. Solves problems involving multiplication of a number (up to 4 digits) with a 2 or 3 digit number Divides a number (up to 4 digits) with or 2 digits numbers with or without remainder. Checks division fact using	pencils, sharpener etc available in the classroom environment Worksheets	Gains deeper knowledge of multiplication and division related problems.	
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Februa ry	Measurement Relates commonly used larger and smaller units of length, weight and volume and converts one to another Appreciates volume of a solid body: intuitively and also by informal measureme nt Solving problems	How Big? How Heavy?	 Understand the concept of volume Understanding the units of volume and mass Ability to find volume of a cube and a cuboid Solving problems related to volume and mass 	 Comparing the volume of different things by putting them into jar filled with water. Making a measuring bottle. Finding volume by arranging the cubes and counting them. Finding volume of a match box by measuring its length, width and height. Making a paper cube Match box play – arrange a particular no. of boxes to make plat form of different heights. Take 4 cards of the same size make pipes (i) length wise pipe (ii) width wise pipe (iii) 	CCC assistance of the control of the	nderstands the concept of volume is the measure of coace an objects occupies. Inds volume of aboids and abical containers y filling in with init cubes erives formulae or finding the colume of a cube or cuboids ecognizes the inits of mass and colume alculates the colume of a cube or cuboids of given imension and express in relevant init.	Cubes Cards of same size Jar of water Worksheets Internet resources	Gets and fairly good idea of -Area & Volume -Weight & volume Able to discuss the concept and solve the problem.	14+1

	involving length, weight and volume		triangle shaped pipe (iv) square shaped pipe. Fill one with sand and pour it into another — compare their volume. • Make a list of grocery items used at home in one month along with their quantity (weights)and also find the total weight • Worksheets and Practice Exercises for drill work	to volume of the cubes.		
March	Revision					



March				

