NAVY CHILDREN SCHOOL
AY- 2021-2022
Revised Split up Syllabus

Class: V Subject: Mathematics
MUST TEACH CHAPTERS

Month	Chapter name	Competency	Learning Outcome	Suggested Activities	TLM	Assignments
April and June	1. The Fish Tale	• Concepts • Large numbers up to 10 crores. • Indian and international system of numeration. • Formation of numbers on short or expanded form and Comparing numbers. • Rounding numbers to the nearest 10,100 and 1000. • Sea animals, fisherman's life and occupation. • Unitary method (profit/loss, cost price/selling price). • Word problems on 4 operations. • Measurement- length, mass, speed, distance and time. • Loan, interest, savings, amount deposited, withdrawn in a bank.	• Use appropriate shapes to draw different sea animals. • Making Big numbers in Indian and International place value system. • Use appropriate measures (length, mass, etc..) to measure units. • Conversion of units. • Rounding numbers to the nearest 10,100,1000. • Solves word problems using the correct method.	• Make different sea animals using various shapes. • Collection of pictures of different types of boats. • Find the speed and fare for one round trip. Mock fish market showing buying and selling of fish and finding distance, speed, time taken by the boats to catch the fish. • Using shapes to make drawings of fish • Make fish design.	• Pictures of different types of boats. • Place value chart. • 50g/100g/ 500g/1kg weights and weighing machine. • Measuring tape & cylinder. • Display the different types of fish and boats in the class.	• Worksheet based on the 4 operations, unitary method, finding interest, loan etc and conversion of unit.
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July	2. Shapes and Angles	• Define geometry. • Point, line, line segment, ray, curved line etc.	• Differentiate between open and closed shapes. • Understanding that	• Drawing of different open and closed shapes. • Make shapes using match sticks.	• Geometrical instruments like protractor, scale and	Worksheet based on construction of angles and

Month	Chapter					
		• Open and closed curves made by line segments. • Plane figures. • Polygons. • Finding angles through activity, yoga, body postures. • Less than right angle (acute angle), right angle, more than right angle(obtuse angle). • Finding angles in clock and things in the surroundings using degrees. • Constructing angles by using protractor in the geometry box. Complementary and supplementary angles.	polygon with same sides have different shapes because of different angles. • Look for the different angles in and around classroom or home. • Formation of angles by using different objects and gestures of body. • Constructing angles using protractor.	• Drawing and comparing different angles using line segment and rays. • Make an angle tester using card board and drawing pin. • On the square paper fold and show the right angle, less than right angle and more than a right angle. • Write three names using straight lines and count the angles • Make shapes using match sticks and rubber tubes, then show the change in angles. • Angles made by clock and in names. • Making a paper degree clock. Angles in a paper aeroplane.	divider. • Visuals of Yoga postures. • Coloured paper. Clock and sticks.	measuring angles using protractor.

August	4. Parts and Wholes	• <u>Mental ability</u>
		• Define fraction.
		• Shade and name the given fraction.
		• Equivalent fraction.
		• Like and unlike fraction. Proper, improper or mixed fraction.
		• Addition, subtraction of like fraction.
		• Addition and subtraction of unlike fraction through equivalent fraction method.
		• Multiplication of fractional numbers.
			• Understanding equivalent fractions by drawing different flags and by cutting halva.
			• Explain like / unlike fractions, unit fractions, proper / improper fractions or mixed fractions.
			• Converting improper fractions into mixed numbers and vice versa.
			• Illustrate through examples fractions in our daily life.
			• Use correct method to solve 4 operations of fractional numbers.
				• Draw our national flag and write fraction for the different colours.
				• Draw different flags and write fraction for the different colours.
				• Make a fraction wheel showing different parts with different colours.
				• Generation of fractions equivalent to a given fractions
				  o Make a magic top.
				  o Colour square grid / make design and write fraction.
				  o Divide the given shapes in equal parts.
				  o Colouring circle game.
				  o Make a time table of your
					• Cutouts of different shapes.
					• Coloured paper.
					• Fraction kit (math lab).
					• Squared paper.
						• Worksheets based on finding equivalent fractions and conversion of improper fractions into mixed numbers and vice versa.

		• Division of fractional numbers. • Reciprocal. • 4 operations on number line. • Word Problems involving fractions in daily life activities.		daily routine and write fraction of each routine. ○ Paper folding activity to show equivalent fractions. • Conversion of improper fractions into mixed numbers using ○ Games and puzzles ○ Quiz ○ Preparing vegetable or grocery bills		
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September	**6. Be my multiple, I'll be your factor**	• <u>Concepts</u>. • Define multiples. • Listing the multiples. Find common multiples. • Define factors. • Listing the factors. Find common factors. • Tests of Divisibility (2 to 12). • Prime and composite numbers. • Prime factorization: factor tree method, short division method. <u>Lcm</u>1.listing multiples,2 prime factorization,3.common division method. <u>HCF</u> 1.listing factors, 2 prime factorization,3.common and long division method. Relationship between HCF and LCM.	• Understanding the concept of multiples by playing games. • Write multiples of given numbers and also find common multiple and LCM. • Find LCM by prime factorization method. • Arranging the group of different things with a fixed number in different ways to understand the concept of factor. • List the factors of given numbers and also find common factors and HCF. • Find HCF by prime factorization method. • Learn to make factor tree of a given number by prime factorization method. • Solve word problems relates to daily life situations.	• Use 10x10 grid to colour odd and even numbers in different colours, to find the odd and even multiples. • Play meow and dice game to give the concept of multiple. • On a 1 to 100 grid colour multiples of 2, 3, 5, 7 in different colours except 2, 3, 5, 7 to find prime and composite numbers. • Find LCM using 1 to 100 grids by colouring the multiples of given numbers and find the common multiples and Least Common Multiple (LCM). • Complete the multiplication chart and find common factors and Highest common factor (HCF). • Tamarind seeds(puzzle) • Arranging bangles in different groups for the same number. • Finding HCF and LCM Musing Cuisenaire strips. • Tiling problems. • Making different rectangles using tamarind seeds.	• 10x10 grid • Bangles, dice, beads, colour pencils, tamarind seeds etc.. • Cuisenaire strips (math lab).	• Worksheets based on finding multiples and factors of a number, LCM, HCF and prime factorization using factor tree method, short division method, common division and long division method.

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October	10. Tenths and Hundredths	Concepts. • Decimal place value chart. • Relationship between decimals and fractions. • Conversion of fraction into decimal number and vice versa. • Expanded form and short form of decimal numbers. • Comparing decimal numbers. • Addition, subtraction of decimals. • Multiplication and division of decimal numbers by 10,100 and 1000. • Multiply and divide the decimal numbers by changing the decimal into fraction and divide by long division. • Conversion of cm to mm and vice versa.	• Learn to measure different objects using scale. • Learn to convert mm to cm and vice versa. • Measure the height of boys and girls in classroom. • Understand the relationship between decimals and fractions. • Observe the decimal notation of rupees and paisa and understanding tenths and hundredths place in decimal place value system. • Explain in which all the places decimal point is used.	• Measure the length of different things in mm and cm like notebook, pencil, eraser, etc • Guess the length and width of Indian rupee notes and measure the actual length. • Solve the four-operation using decimal kit. • Find the value of other country currency in Indian currency. • Find the maximum and minimum temperatures of different cities and find differences too. • Create a market scene to understand money transaction. • Make colourful designs using square grid.	• Decimal place value chart. • Scale / Measuring tape. • Price tags. • Decimal kit(math lab)	• Worksheet based on measurement of length in cm and mm. • Worksheet based on decimals.
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November	11. Area and its Boundary	Mental ability. • Finding area and perimeter of given figures using formula. • Find the missing side, length and breadth. • Word problems. • Application through activity. • If the side of 1 square is 1cm and the sides getting double the side of given square then each side is 2 cm. Now the area is 4 times and the perimeter got increased by two times by drawing squares on the note. • Finding perimeter and area of irregular shapes.	• Finding the area and perimeter of class-room, display board, black board, etc. • Find the area and perimeter of a given square and rectangle. • Problem solving related to area and perimeter of square and rectangle. • Understand that things with the same area can take different forms and with different perimeters through post card activity. • Explain with same perimeter can take different forms but the area is different.	• Measure the length and breadth of the given things and find their area and perimeter. • Paste different cutouts and find their area and perimeter. • Make a birthday or greeting cards and find its area and perimeter. • Draw two squares (one is double of the other). Find their area and perimeter and compare it too. • Make all possible rectangles and squares with the given number of squares. • Puzzle – pass through a postcard. • Area of the classroom. • Longest belt using post card. • Thread play.	• Scale / Measuring tape. • Cutouts of different shapes. • Metretape (math lab).	• Worksheet on finding area and perimeter of given shapes.

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December	**12.Smart Charts**	<u>Mental ability</u>. • Define data collection. • Tally marks. • Chapatti chart. • Bar graph. • Family tree. • Growth chart.	• Understand the recording of data using the method of tally marks. • Use appropriate chart types for a particular data. • Differentiate between chart types like Bar, pie chart, etc.	• Use of tally marks for different numbers. • Observe the ½ an hour program and making tally marks for the different ads. • Making a table to record temperature of different cities and represent the data as Bar Graph. • Make your family tree up to 4th generation. • Record the growth of any plant / animal and represent it on a graph paper in form of a growth chart.	• Data collection. • Newspaper to collect economic data survey analysis. • Family details.	• Worksheets based on handling of different types of charts and answer the questions.
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January	**13. Ways to multiply and divide**	<u>Concepts.</u> • Multiplication by splitting and column method. • Division by splitting and long division method. • Do sums of division and check the result by multiplication. • Word problems based on day to day life.	• Multiplying numbers in two different ways by splitting method and column method. • Problem sums related to daily life. • Divide and check the answer by multiplication.	• Determine the multiplication and division facts of a number. • Fun with multiplication. • Give a situation and ask students to frame a question related to concept of division and multiplication. • Mock shopping situations created (for mental calculations). • Solve multiplication and division sums using base ten set.	• Objects like erasers, pencils, sharpeners, etc. available in the classroom environment. • Base ten set (math lab).	• Worksheet based on multiplication and division including word problems.

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February	14. How Big? How Heavy?	Concepts. • Solid shapes and their nets. • Find the volume of different objects by filling sand or water. • Find the volume of cube and cuboid. • Application through activity and observe circle has the biggest area. In this child will observe which solid shape has the biggest volume. • Measuring weight. • Word problems.	• Comparing the volume of different things by putting them into jar filled with water. • Making a measuring bottle of different measures of capacity. • Finding the volume by arranging the cubes and counting them. • Finding the volume of cube and cuboid.	• Making a paper cube. • Match box play – arrange a particular number of boxes to make platform of different heights. • Take 4 cards of the same size make pipes (i) length wise (ii) width wise (iii) triangle shaped pipes (iv) square shaped pipes. Fill one with sand and pour it into another. • Finding volume of a match box by measuring its length, width and height • Make a list of food items each person carry when they plan a trip for one month and find total weight.	• Cubes. • Cards of same size. • Sand. • Jar of water.	• Worksheet based on finding volume of cube and cuboid.
March	Revision					

Note

Chapters that are Good To Teach for AY 2021-22:

L - 3 How many squares?
L - 5 Does it look the same?
L – 7 Can You See The Pattern?
L - 8 Mapping your way
L - 9 Boxes and Sketches