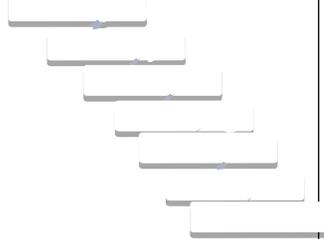


**NAVY CHILDREN SCHOOL  
AY-2021-2022  
Revised Split Up Syllabus**

**Class: IV Subject: Mathematics  
MUST TEACH CHAPTERS**

Month	Chapter	Competency	Learning Outcome	Suggested Activities	TLM	Assignments
April	<b>1.Building with Bricks</b>	<u>Concepts</u> <ul style="list-style-type: none"> <li>Indian and international place value system up to 10 lakhs.</li> <li>Geometrical shapes.</li> <li>Jaali pattern.</li> <li>Brick dimension.</li> <li>Brick kiln.</li> <li>Brick rate.</li> <li>Word problems.</li> </ul>	<ul style="list-style-type: none"> <li>Recognizes geometrical shapes (plane figures and solid shapes).</li> <li>Identifies properties such as edges, corners, faces, smooth or rough surfaces.</li> <li>Illustrate patterns in building bricks.</li> <li>Analyze which kind of building brick walls will be stronger.</li> <li>Describe about brick kiln and how bricks are made out of soil.</li> </ul>	<ul style="list-style-type: none"> <li>Students use cloth clips, ice cream sticks to build a house.</li> <li>Constructing bridges using interlock cubes and chart papers using clue cards.</li> <li>Building pucca and kutcha house.</li> <li>Measuring the length, breadth and height of a brick.</li> <li>Jaali pattern making activity</li> <li>Students paste coloured pieces of shapes and form patterns of their choice.</li> </ul>	<ul style="list-style-type: none"> <li>Cloth clips, ice cream sticks, glue, etc.</li> <li>Interlock cubes and charts.</li> <li>Chart papers, toothpicks, clay, card boards, colour papers, glue and straws.</li> <li>Brick.</li> </ul>	<ul style="list-style-type: none"> <li>Worksheet based on the topic building with bricks.</li> </ul>
June	<b>2.Long and Short</b>	<ul style="list-style-type: none"> <li><u>Concepts</u></li> <li>Imperial system.</li> <li>Nonstandard unit of length.</li> <li>Spatial relationship.</li> <li>Metric system.</li> <li>Standard unit of length.</li> <li>Conversion</li> </ul>	<ul style="list-style-type: none"> <li>Recognize the standard units using keywords to recall units. Example:</li> </ul>  <ul style="list-style-type: none"> <li>Understand the relation</li> </ul>	<ul style="list-style-type: none"> <li>Measure things that are available at home using their arms and feet.</li> <li>Make a list of last year's height and this year's height of their family members.</li> <li>1 km walk preferably along a</li> </ul>	<ul style="list-style-type: none"> <li>Charts, paints, crayons, glue and cloth clip.</li> <li>Measuring tape.</li> <li>Scale.</li> <li>Following link may be used by teachers for value addition: <a href="https://youtu.be/m3pfgAh6q84">https://youtu.be/m3pfgAh6q84</a></li> </ul>	<ul style="list-style-type: none"> <li>Worksheet based on the topic long and short.</li> <li>Make them to collect information about</li> <li>Who is tallest in your</li> </ul>

		<p>from larger unit to smaller unit and vice versa.</p> <ul style="list-style-type: none"> <li>• Four operation in measuring length.</li> <li>• Word problems.</li> </ul>	<p>between cm and meter.</p> <ul style="list-style-type: none"> <li>• Compare length using an improvised standard unit or metric system.</li> <li>• Identify long length are measured in (m) and short lengths are measured in mm and cm and distance through (km), able to calculate dm, dam, hm, etc.</li> <li>• Using the tape or scale they will be able to measure longer and shorter length.</li> <li>• Estimate the length of objects and the distance between two given locations.</li> </ul>	<p>straight path.</p> <ul style="list-style-type: none"> <li>• Make a table finding distance from their home to school. (less than or more than 1 km).</li> <li>• Measure the length of their desk, book etc.</li> <li>• Dramatization on different lengths.</li> <li>• Making different objects by using scale.</li> </ul>		<p>family?</p> <ul style="list-style-type: none"> <li>• Who is shortest in your family?</li> </ul>
Month	Chapter	Competency	Learning Outcome	Suggested Activities	TLM	Assignments
July	4.Tick - Tick – Tick	<ul style="list-style-type: none"> <li>• Compares the number of weeks in a year.</li> <li>• Correlates the number of days in a year with the number of days in each month.</li> <li>• Justifies the reason for the need of a leap year.</li> <li>• Reads the clock time.</li> <li>• Expresses time using am and pm.</li> <li>• Explain about time line.</li> </ul> <p>Find approximate and elapsed time.</p>	<ul style="list-style-type: none"> <li>• Read a clock and tell the time both in 24 hour and 12 hour time.</li> <li>• Through drill finding approximate and elapsed time.</li> <li>• Calculate hours/minutes using two given dates</li> <li>• Convert 12 hours to 24 hours and vice versa</li> <li>• Read time table of Railway/ bus ticket.</li> </ul> <p>Understanding the manufacturing and expiring date on eatables, medicines, etc.</p>	<ul style="list-style-type: none"> <li>• Make a clock and draw the hands.</li> <li>• Make a time table of that day like. <ul style="list-style-type: none"> <li>○ 6:00 am – Wake up</li> <li>○ 6:30 am – Taking bath</li> <li>○ 7:00 am – Break fast</li> <li>○ etc</li> </ul> </li> <li>• List the activities done in 5 minutes, less than 1 hour, more than 1 hour.</li> <li>• Growth of plant / life span.</li> <li>• Use school diary to mark daily activities in correct order on timeline, list of holidays, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Clock</li> <li>• Old calendar</li> <li>• Used wrappers or boxes of food items and medicines.</li> <li>• A potted plant.</li> <li>• News paper.</li> <li>• School diary</li> </ul>	<ul style="list-style-type: none"> <li>• Worksheets based on finding am and pm, converting 12 hours to 24 hours, converting hours to minutes and minutes to seconds and solving word problem.</li> </ul>

Month	Chapter	Competency	Learning Outcome	Suggested Activities	TLM	Assignments
August	6.The Junk seller	<ul style="list-style-type: none"> <li>• <u>Concepts</u></li> <li>• Indian currencies.</li> <li>• Conversion of ` to paise and vice versa.</li> <li>• Add, subtract, multiplication and division in money.</li> <li>• Making bill.</li> <li>• Unitary method.</li> <li>• Profit and loss.</li> <li>• Cost price and selling price.</li> <li>• Loan and interest.</li> <li>• Multiply by splitting method using expanded notation.</li> </ul>	<ul style="list-style-type: none"> <li>• Can purchase things from the market and compare their price.</li> <li>• Awareness about loan and interest through group discussion.</li> <li>• Illustrate splitting multiplication using expanded notation.</li> <li>• Adds and subtracts amount using + and – with regrouping.</li> <li>• Makes a bill using unit and multiple cost.</li> <li>• Understand the concept of loan, profit and loss, cost price and selling price.</li> <li>• Frames word problems.</li> <li>• Solves problems related to money transaction.</li> </ul>	<ul style="list-style-type: none"> <li>• Weather report (time of sunrise and sunset)</li> <li>• Mock junk shop showing buying and selling of junk items, make list of things sold in the junk market and making a bill.</li> <li>• Mock bank showing lending and borrowing money.</li> <li>• Make different combinations for a given amount using different denominations of notes.</li> <li>• Making a bill.</li> </ul>	<ul style="list-style-type: none"> <li>• Objects in the classroom and things needed for the mock junk shop.</li> <li>• Duplicate charts, notes and coins.</li> </ul>	<ul style="list-style-type: none"> <li>• Word problems.</li> <li>• First estimate the answer and then calculate.</li> <li>• Mental arithmetic and worksheets on addition, subtraction, multiplication of 2-3 digit numbers and bills.</li> </ul>
September	7.Jugs and Mugs	<ul style="list-style-type: none"> <li>• Understand and measure volume of a given liquid using containers marked with standard units.</li> <li>• Determine sum and difference of volume.</li> </ul>	<ul style="list-style-type: none"> <li>• Selects which unit of volume to be used for smaller quantities and bigger quantities.</li> <li>• Solves problems related to volume.</li> <li>• Justify which items are measured in litres and milli litres.</li> <li>• Knows how to convert the smaller units into larger units and vice versa.</li> <li>• Adds and subtract the given</li> </ul>	<ul style="list-style-type: none"> <li>• Compare the volume of different things by putting them into jars filled with coloured water.</li> <li>• Observe the different capacities in ml and litres.</li> <li>• Guess how much water can jugs, mugs, bottles and</li> </ul>	<ul style="list-style-type: none"> <li>• Colours, water, different sizes of bottles / jars.</li> <li>• Measuring jars.</li> <li>• Different types of containers available in the market for oil, milk, soft drinks, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Practice; solve problems related to capacity mentally.</li> <li>• Puzzles.</li> <li>• Worksheet based on converting smaller units to larger units</li> </ul>

		<ul style="list-style-type: none"> <li>Estimates the volume of a liquid contained in a vessel and verifies by measuring.</li> <li>Understanding the units of volume.</li> </ul>	<ul style="list-style-type: none"> <li>quantity of liquid.</li> <li>Understanding the importance of saving water drops and drops make an ocean.</li> </ul>	<ul style="list-style-type: none"> <li>glasses of different measures hold.</li> <li>List 5 items which are measured in litres / ml.</li> <li>Find the capacity of wrappers / labels like plastic bottle of water, cooking oil, tetra pack of milk, etc.</li> </ul>		<ul style="list-style-type: none"> <li>and vice versa.</li> <li>Solves word problems.</li> <li>Matching the correct unit to the objects.</li> </ul>
<b>October</b>	<b>9.Halves and Quarters</b>	<ul style="list-style-type: none"> <li>Write the fraction in words and in numeral form.</li> <li>Define equivalent fractions of <math>\frac{2}{4}</math> is <math>\frac{1}{2}</math> of a whole etc.</li> <li>Reducing the fraction to its lowest term and building the given fraction to highest term through equivalent fraction method.</li> <li>Define like fraction and unlike fraction.</li> <li>Explain proper, improper or mixed number.</li> </ul>	<ul style="list-style-type: none"> <li>Understands part / fraction of a whole and of a collection.</li> <li>Understands the concepts of halves, quarter and three-fourth, etc.</li> <li>Understands fraction is division.</li> <li>Identifies equivalent fraction and generate equivalent fraction to a given fraction.</li> <li>Explain highest term and lowest term.</li> <li>Understands types of fractions – Proper and improper fractions, like and unlike fractions.</li> <li>Define unit fractions.</li> <li>State mixed fraction is used in day to day life and improper fractions are used for calculation and define how both are same.</li> <li>Find the cost of <math>\frac{1}{2}</math>kg, <math>\frac{1}{4}</math>kg, etc of different objects.</li> <li>Illustrate fraction in metric measures.</li> </ul>	<ul style="list-style-type: none"> <li>Colour <math>\frac{1}{2}</math>, <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{3}</math> in a paper.</li> <li>Divide the given objects into halves in different ways.</li> <li>Finding fraction of a collection, group of halves, quarters, in a given collection.</li> <li>Complete the picture by drawing other half.</li> <li>Colour and make <math>\frac{1}{2}</math>, <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{3}</math>, <math>\frac{3}{4}</math> of fraction flowers using paper plates and display it in class.</li> <li>Solves day to day problems using a price list.</li> <li>By mock shopping, find the cost of given items and make a list.</li> </ul>	<ul style="list-style-type: none"> <li>Square sheets.</li> <li>Circular sheets or objects.</li> <li>Objects in the surroundings.</li> <li>Paper plates.</li> <li>Price list of different items.</li> <li>Fraction kit(math lab).</li> </ul>	<ul style="list-style-type: none"> <li>Solve problems related to fractions 1 whole, <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, etc.</li> <li>Worksheets based on finding like, unlike, proper and improper fractions.</li> <li>Converting improper into mixed fractions, equivalent fraction.</li> <li>Add, subtract and multiply using fractional numbers.</li> </ul>

		<ul style="list-style-type: none"> <li>Comparing fractions, ordering the like fractions.</li> <li>Addition and subtraction of the like fractions.</li> <li>Multiplication of fractional number with whole number.</li> <li>Relates fractions in meters into centimeters.</li> <li>Fractions weighs 1kg into grams.</li> <li>Volume relates 1litre into milliliter in fraction.</li> <li>Word problems.</li> </ul>		<ul style="list-style-type: none"> <li>Showing the type of fraction using fraction kit.</li> <li>Paper folding activity showing halves and quarters and three fourths.</li> </ul>		
Month	Chapter	Competency	Learning Outcome	Suggested Activities	TLM	Assignments
November and December	11.Tables and shares	<ul style="list-style-type: none"> <li><u>Mental ability</u></li> <li>Define multiplication.</li> <li>Distinguish multiplicand, multiplier and product.</li> <li>Finding different arrangements for the same number.</li> <li>Repeated addition is multiplication.</li> <li>Make the</li> </ul>	<ul style="list-style-type: none"> <li>Understands the properties of multiplication and division.</li> <li>Learns to multiply by splitting and column method and solves problems.</li> <li>Make the tables using splitting the numbers method.</li> <li>Divides a numeral by one digit numeral.</li> <li>Solves word problems involving multiplication and division.</li> <li>Apply correct method to solve problems involving</li> </ul>	<ul style="list-style-type: none"> <li>Make them draw their own garden for same number of plants in different arrangements.</li> <li>Arrange the students to stand in 2's ,3's, 4'setc to find the group, set size or the product/ dividend etc.</li> <li>Desks in the classroom finding</li> </ul>	<ul style="list-style-type: none"> <li>Colour chalks</li> <li>Marbles and strips. </li> <li> Base ten set (math lab)</li> <li>Flash cards</li> </ul>	<ul style="list-style-type: none"> <li>Worksheets based on multiplication and division sums..</li> <li>Solves word problems.</li> </ul>

		<p>tables.</p> <ul style="list-style-type: none"> <li>• Multiply by splitting method of 2 or 3 digit number by 1 digit number and 2 digit numbers.</li> <li>• Multiply by column method.</li> <li>• Repeated subtraction is division.</li> <li>• Divide by 1 or 2 digit numbers.</li> <li>• Word problems.</li> <li>• Story problems.</li> </ul>	<p>multiplying 1 digit, 2 digit, 3-digit number with 1 digit and 2 digit number.</p> <ul style="list-style-type: none"> <li>• Divides a number (up to 3-digit number) with a 1-digit and 2-digit number with or without remainder.</li> <li>• Learns to check division fact using multiplication facts.</li> <li>• Recognize the four operations through symbols.</li> <li>• Apply correct method to solve day to day life situation problems in multiplication and division.</li> </ul>	<p>multiplication and division facts.</p> <ul style="list-style-type: none"> <li>• Multiplication and division on number line drawn on the floor and children jumps on the number drawn on the floor and multiply or divide.</li> <li>• Skip counting.</li> <li>• Framing questions by looking at pictures.</li> <li>• Sorting the marbles equally. Finding group, set size and the product or the total dividend.</li> <li>• Solving the division sum using base ten set.</li> <li>• Arrange things in sequence and develop the multiplication fact</li> <li>• Jumping activity- Children jump equal steps in a number line and count the number of jumps taken.</li> </ul>		
<b>Month</b>	<b>Chapter</b>	<b>Competency</b>	<b>Learning Outcome</b>	<b>Suggested Activities</b>	<b>TLM</b>	<b>Assignments</b>
<b>January</b>	<b>12.How heavy? How light?</b>	<ul style="list-style-type: none"> <li>• <u>Concepts</u></li> <li>• Define imperial and metric system.</li> </ul>	<ul style="list-style-type: none"> <li>• Recall imperial system of measurement and metric system of measurement.</li> <li>• Recognizes SI units.</li> <li>• List the table used in SI</li> </ul>	<ul style="list-style-type: none"> <li>• Compare the items which are heavy / heavier / heaviest.</li> <li>• Estimate weights</li> </ul>	<ul style="list-style-type: none"> <li>• Objects available in the classroom.</li> <li>• Measuring tape and weighing machine.</li> <li>• Rajma seeds, ground nut,</li> </ul>	<ul style="list-style-type: none"> <li>• Measuring the weight through weighing machine.</li> </ul>

		<ul style="list-style-type: none"> <li>• Conversion from mg to kg and vice versa.</li> <li>• Four operations.</li> <li>• Estimates the weight of an object and verifies using a balance.</li> <li>• Puzzles.</li> <li>• Understands the importance of weighing balance through activity.</li> <li>• Use different weights to make it to 1 kg , 2 kg etc.</li> </ul>	<p>system from lowest to highest unit.</p> <ul style="list-style-type: none"> <li>• Collects history about fake weighing balance.</li> <li>• Awareness about fake weighing balance.</li> <li>• Observes and understands the higher and lower units of measurement.</li> <li>• Makes balance and finds weight.</li> <li>• Selects the correct unit of weight of the given objects.</li> </ul>	<p>of objects in class (Example: duster) and find the exact weight through weighing balance.</p> <ul style="list-style-type: none"> <li>• List the things bought in grams and kilograms.</li> <li>• Compare the weight and height and the units used.</li> <li>• Bring 1kg, <math>\frac{1}{2}</math> kg of some pulses. Tell them to assume that and then make them to weigh the pulses.</li> <li>• Use rolling cards and make them to convert lowest unit to highest unit and vice versa.</li> </ul>	<p>bananas, oranges, vegetables, etc.</p> <ul style="list-style-type: none"> <li>• Different weighing machines (math lab)</li> </ul>	<ul style="list-style-type: none"> <li>• Worksheet based on 4 operations and conversion of weight.</li> <li>• Draw the table to show the lowest to highest unit of weight.</li> </ul>
<b>February</b>	<b>13.Field and fences</b>	<ul style="list-style-type: none"> <li>• <u>Concepts</u></li> <li>• Understanding the concept perimeter of simple geometrical figures.</li> <li>• Ability to compute perimeter of regular and irregular shapes.</li> <li>• Solving problems based on perimeter.</li> </ul>	<ul style="list-style-type: none"> <li>• Understands the meaning of fields (area) and fences (perimeter).</li> <li>• Illustrate boundary (perimeter) is the sum of the sides of the given figure.</li> <li>• Finds perimeter of different things in the surroundings using scale or tape.</li> <li>• Calculate the perimeter of regular shapes like rectangle, square, triangle, etc using square sheet.</li> <li>• Find the area by counting the number of squares inside a irregular shapes using 1cm sq. paper.</li> <li>• Solves day to day life</li> </ul>	<ul style="list-style-type: none"> <li>• Measure the length and breadth of given figures and things and find their area and perimeter.</li> <li>• Measure perimeter using ribbons of 1m length arrange them in the floor.</li> <li>• Determine length in cm's, meters, km's of simple figures.</li> <li>• Determine area and perimeter using squares, thread for the</li> </ul>	<ul style="list-style-type: none"> <li>• Maths text book, table, desk, etc</li> <li>• Scale and measuring tape.</li> <li>• Using 1 m ribbons</li> </ul>  <p>Area = l x b = 8x4=32m Perimeter=2(l +b) =2(8+4)=24m</p> <ul style="list-style-type: none"> <li>• Squared ruled paper and thread.</li> <li>• Square paper.</li> </ul>	<ul style="list-style-type: none"> <li>• Worksheet based on finding the area and perimeter of simple geometrical figures.</li> <li>• Solves word problems based on area and perimeter.</li> </ul>

			problems related to perimeter.	irregular shapes. <ul style="list-style-type: none"> <li>Asking the children to measure the four sides of the blackboard, display board, corridor and finding the length, width and perimeter</li> </ul>		
March - Revision						

**Note :**

Chapters that are Good To Teach in the AY 2021-22:

CHAPTER 3 : A Trip To Bhopal

CHAPTER 5: The Way The World Looks

CHAPTER 8: Carts And Wheels

CHAPTER 10: Play With Patterns

CHAPTER 14: Smart Charts