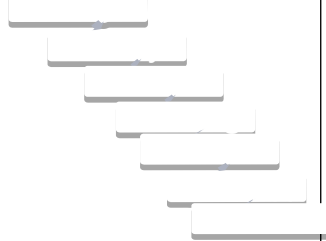


**NAVY CHILDREN SCHOOL
AY-2021-2022
Revised Split Up Syllabus**



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

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


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

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

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

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

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

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

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