LEARNIN	LEARNING OUTCOMES						
Chapter name	Sub topics	Learning Objective	Methodology	NCERT LO			
Chapter 1:The Fish Tale	Measureme nt of length Profit and loss	Solves simple real life problems involving measurement of length.	Recalling the concept of measuring length	Applies the four fundamental arithmetic operations in solving problems involving money, length, mass_capacity			
		Solves simple real life problems related to speed, distance and time.	Introducing methods to solve real life problems of loans, interests and savins	and time intervals			
		Solves simple real life problems related to weight	Preparing wall hanging of phrase used to represent unit conversion				

MAPPING OF GRADE 5 MATHEMATICS TOPICS WITH NCERT

	 nhies the normalized activity / Lab activity - Making Indian and International place value chart on A-4 sheet, Children move in the circle. Teacher says "Bolo Bhai Kitne?" Children say "Aap Bolo Jitne." Then the teacher calls out a number 4. The children quickly break 	 Norks with large numbers a) Reads and writes numbers bigger than 1000 being used in her /his surroundings b) Performs four basic arithmetic operations on numbers beyond 1000 by understanding of place value of numbers c) Divides a given number by another number by another number using standard algorithms Estimates sum, difference, product and quotient of numbers and verifies the same using different strategies like using standard algorithms or breaking a number and then using operation.
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	group (be it a	
	single child	
	student or 2	
	or 3) is out	
	of the game.	
	• Children	
	who remain in	
	the game start	
	moving in a	
	circle again. The	

teacher says
"Boo bhai
kitne" and
children say
"Aap bolo
jitne". • The
teacher calls a
number 5.
Again
children will
break the
circular chain
and rearrange
themselves in
groups of 5.
Whosoever
remains
without a
group is out of
the game and
the game
continues.

Solves real life problems related to money	Applies the four fundamental arithmetic operations in solving problems
Solves simple real life problems related to loans, interest and savings	involving money, length, mass, capacity and time intervals

Chapter 2: es and Ang Angle s	Shap Jles Polygons Types of Explain t	angles he	meaning of angle. Introducing angles and types	an the its	Explores idea angles and shapes a) Classifies an into right ang	a of gles gle,	acute angle, obtuse angle and represents the same by drawing and tracing
	Angles	Exp	plain the	Р	aper fan	b) Identifies 2d

Angles using protractor	Explain the relationship between the angles and the shape of a polygon.	Paper fan activity to form different angles	b) Identifies 2d shapes from the immediate environment that have rotation and reflection symmetry like alphabet and
	Identifies and classifies different types of angles (right angle, acute angle, obtuse angle)	Recalling the concept of perimeter	snapes Makes cube, cylinder and cone using nets designed for this purpose
	Classifies different angles found in our surroundings into acute angle, obtuse angle, right angle and represents the same by drawing and tracing	Art integrated activity / Lab activity - Making different types of angles with match sticks/straws and origami sheets on A-4 size sheet	
		Making paper protractor by tracing the outline of a protractor on a sheet and then drawing lines &	

		mentioning degrees	
	Makes a degree clock to estimate and measure angles around us.		
	Estimates and measures angles using a protractor		

perimeter Finds the perimeter of a given figure	
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Chapter 3:How Many Squares ? Perimeter	Develops a sense of the concept of 'area' using the square grid	Grid activity to find perimeter and area	Acquires understandin g about perimeter of geometrical
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Area of shapes Word problems	Finds the area of objects by tracing on square grids	Introducing formula to find area and perimeter if a geometrica I shape	figures and area Applying it in daily life situation
	Solves simple problems based on the area of geometrical shapes	Application of concept in daily life situations	
	Deduces that objects having equal areas can have different perimeter.	Art integrated activity / Lab activity - Making small square papers and drawing regular shapes in it for finding the perimeter of the given shape Find the area of leaf :- Place a leaf on a 1cm square grid. Trace the outline of the	

		Solves real life problems related to area of shapes	leaf. Count the number of 1cm squares covered within the outline. Estimate the number of 1cm squares that are formed by the partial squares (count only half and more than half squares). Find the total number of squares	
Chapter 4:Parts and Wholes	Fractions Types of fractions Comparing	Represents 1/3, 1/2,1/3,1/4,3/ 4 part of a collection by shading and representing symbolically	Comparing fractions using paper folding activity	Acquires understandi ng about fractions – finds the number correspondi ng to part of a
	fractions Word problems	Compares fractions (1/2,1/3,1/4,3/4)	Recalling the types of fractions	collection – identifies and forms equivalent fractions of a

Finds fractional parts of the given quantities (2/5th of 100 coins)	Application of concept in daily life situations	given fraction – expresses a given fraction 1 /2 , 1 /4, 1 /5 in decimal notation and
Calculates the whole by looking at the given	Art integrated activity / Lab	vice-versa.

fractional part	activity -	
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	Recognizes equivalence in fractions) Fraction album - Cut out 5- 6 small sized circles and then pasting the circles to each other from the centre. Mention the fractions in the circles by making parts like 1 for whole circle, Divide next circle in 2 equal parts then the fraction will be ½, ½, & so on Fraction fish can be	
		fraction fish can be made with different cuttings of fraction parts from colorful sheets or origami papers.	

	Solves real life problems based on fractions	

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Chapter 5:Does it Look the Same?	Symmetry Reflection symmetry Line of symmetry Rotational symmetry	Checks symmetry and finds line of symmetry in various objects and shapes	Relating the concept of symmetry with surroundi ng objects	Explores idea of angles and shapes a) Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing b) Identifies 2d shapes from the immediate environment that have rotation and reflection symmetry like alphabet and shapes Makes cube, cylinder and cone using nets designed for this purpose
		Identifies rotational symmetry in 2D shapes	Discussing symmetry and its types	Explores idea of angles and shapes a) Classifies

	Identifies shapes, numbers, objects which look the same after (i) half a turn; (ii) One-fourth turn; (iii) One- third turn; (iv) One sixth turn.	Paper folding activity for line of symmetry	angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing b) Identifies 2d shapes from the immediate environment that have rotation and reflection symmetry like alphabet and shapes
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	Predicts and draws the shapes how an object would look like after Half turn, One-fourth turn, One-third turn, One- sixth turn.	Art integrated activity / Lab activity - Paper folding and cutting activityTa ke a sheet of coloured paper and fold it into half. Again fold the folded paper into half. Cut out different shapes on the sides of folded paper with the help of scissors. Open the paper and see the design obtained. Find the line(s) of symmetry of the designs with different folds and shapes	Makes cube, cylinder and cone using nets
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		designed for this purpose

Chapter 6:Be My Multiple, I'll be your Factor	Multiples and factors Common multiples and	Identifies and defines multiples of a number.	Recalling the concept of multiples and factors	Acquires understandi ng about -multiples and factors -factor tree -LCM	
	common factors	Solves simple problems based on the multiples of numbers	Factor tree activity	-HCF -word problems	
		Finds out common multiple(s) of given numbers	Finding LCM and HCF of numbers		

	Finds factors using factor tree and solve contextual problems related to it.	Art integrated activity / Lab activity - Making grid for finding factors and multiples:- Make a 20X20 grid on a A-4 size sheet or a graph papers can also be used with 20 rows & 20 columns. Mark numbers 1 to 20 horizontally and vertically. Color the first column with any pencil colour, then colour 2nd column after every	
		after every 2nd box, then 3rd	

	column after every 3 boxes and so on till 20.	
Finds out common factors(s) of given numbers and solve contextual problems related to it.	 Grid activit y to find multi ples and factor s 	
Connect the concepts of LCM and HCF with real life situations		

Chapter 7:Can You See the Pattern?	patterns	Identifies and explores patterns in special numbers	Introducing patterns in triangular numbers and square numbers Art integrated activity / Lab activity -	Identifies the pattern in triangular number and square number
			Collecting pictures of patterns in daily life like floor carpet, rangoli, building etc.	
			Making shape patterns with bindis, match sticks, pulses, rice and number patterns with match sticks, sheets cuttings,	

			stones(used as decoration items), leaves	
Chapter 8:Mapping Your Way	Map work	Uses the concept of scale	Introducing maps and its scale	Acquires understanding about reading and creating
		Reads and interprets the given map	Interpretation and creating maps using symbols	symbols

Draws a given picture with different scales and estimates the area occupied	Art integrated activity / Lab activity - Drawing a compass on a A-4 size sheet showing all the four directions. Drawing a map of of school on a graph paper and showing showing important places in it.	
Recognizes directions in different contexts.		

Chapter 9:Boxes and Sketches	Solidshapes	Makesnets forcubes and cuboids	Introducing3 D shapesand theirnets Differentiate betweentyp es ofsolid shapes Papercutting activityfor drawingnets Art integrated activity/Lab activity/Lab activity- Makingnetsof different3-D objectswith papercuttingan d foldingactivity- (1)Takecolourf ul sheets to draw and cut nets of different 3-D shapos liko	Explores ideaof anglesandshape s a)Classifiesangle s into right angle, acute angle, obtuse angle and represents the same by drawing and tracing b) Identifies 2d shapes from the immediate environment that have rotation and reflection symmetry like alphabet and shapes Makes cube, cylinder and cone using nets designed for this purpose
			draw and cut nets of different 3-D shapes like cuboid, prism, cube, triangular pyramid, square pyramid, rectangle pyramid	
			(2) Making Pull up nets of 3-D shapes using colored sheets and thread	

Chapter 10:Tenths and	Decimals	Represents decimals into	Introducing the concept of	Acquires understanding about fractions
Hunareaths	decimals	and vice versa.	observe	number corresponding to
	Operations on decimals		situations that require the representation by decimals	part of a collection – identifies and forms equivalent fractions of a given fraction
			Represent a decimal number on a grid paper	given fraction 1 /2 , 1 /4, 1 /5 in decimal notation and vice-versa.

	Paper folding Activity	
	Art integrated activity / Lab activity -	
	Making decimal place value chart on a A-4 size sheet	
	Paper folding activity to learn the operations on decimals	

Chapter 11:Area and its Boundary	Introducti on to the concept of area	Calculates area of rectangular figures through different methods	Inducing the concept from daily life examples	
	square	methodo	the concept	
		Calculates the area of	from concrete to	

Areaofa rectangle	square	abstract	
Grid methodto findarea and perimeter	Solves problems basedon areaand perimeter ofa rectangle	Applicationof theconcepts in daily life situations	
	Solves problems basedon areaand perimeter ofasquare	Square grid Activity Art integrated activity / Lab activity -	
	Solvesreal life problems based on area of simple shapes.	Writing formulas in small sized folded cards and drawing the shapes on the	

		Finds the perimeter and areaof irregular shapeson squaregrid	card mentioning the dimensions and name of shape. Then pasting all the cards on a A-4 size sheet. Finding area using geoboard	
Chapter 12:Smart Charts	Tally marks table	Recordsdat a in tabular form	Recallingthe Coll conceptof rela tallymarks, daily pictograph lifes and bar repr graph tabu and Introducing the concept	Collectsdata relatedtovarious daily lifesituations,
	Pictograph Bargraph Piechart	Records and interprets data using tally marks		represents it in tabular form and as bar graphs and interprets it.
		Plot data in a bar graph and interpret	chart	

	Multiplies two or three digit numbers through standard algorithm	Art integrated activity / Lab activity - Making a bar graph with colourful strips and sketch colours showing the monthly expenditure of my family. Making a data handling pictograph showing different types of transport used by the people of our society to commute. Transport can be shown with the pictures and number of people using those transports can be shown with colourful glitter sheets cuttings.	
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and Divide	and Division using Divide long division method	Divides given numbers through nonstandard algorithm	Application of multiplication and division in real life situations Puzzle solving using multiplication and division Art integrated activity / Lab activity - Make colourful boxes divided into 4 parts to show the multiplication of 2 two-digit numbers by distributive property Learn multiplication using broomsticks	bigger than 1000 being used in her /his surroundings b) Performs four basic arithmetic operations on numbers beyond 1000 by understanding of place value of numbers c) Divides a given number by another number using standard algorithms Estimates sum, difference, product and quotient of numbers and verifies the same using different strategies like using standard algorithms or breaking a number and then using operation.
Patter	Patterns Puzzles	Divides numbers using standard algorithms		
		Solves real life problems based on multiplication and division		
		Creates and solves patterns, games, puzzles using multiplication and division		

Chapter 14:How Big? How Heavy?	Introduction to the concept of volume Volume of 3D shapes Word problems	Guesses approximate volume of solid objects found in day to day life. Measures and compares the volume of solids	Introducing the concept of volume of solids Application of the concept of volume in real life situations Art integrated activity / Lab activity -	Estimates the volume of a solid body in known units like volume of a bucket is about 20 times that of a mug
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Calculates volume of different objects in terms of other objects.	Making small cube and cuboid with colored sheets and paste it on another sheet mentioning their dimensions. Then write formulas of volume of cube and cuboid on the right side of shapes	g small nd with d and t on er ning sions. vrite as of e of nd on nt side pes
Calculates the volume of solid objects using container marked with the standard units		
Finds the volume of a cube		
Finds the volume of cuboid		

Solves real life problems based on volume of solids	Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals
Relates different commonly used larger and smaller units of weight and convert larger units to smaller units and vice versa.	Relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa

Appliesthe four fundamental arithmetic operations in solving a variety of contextual problems involving weight.	Appliesthefour fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals
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