

BIFURCATION OF SYLLABUS (2023-24)

SUBJECT: MATHEMATICS

CLASS: VI

TEXT BOOK - NCERT MATHEMATICS

TERM-1	ASSESSMENT & MARKS	MONTH	CHAPTER & SUB TOPICS	LEARNING OBJECTIVES	ACTIVITY	SYLLABUS COVERAGE
APRIL TO SEPTEMBER		April	1. Knowing our Numbers <ul style="list-style-type: none">• Revisiting place value, Comparing numbers• Ascending/ Descending numbers• Large number in practice• Estimation• Roman Numbers	<ul style="list-style-type: none">• Find the place value of the digit in any number in Indian Number System and International Number System to, expand given number to find place value of a given digit, Comparing numbers.• Making smaller/ greater number from given digits, arrange numbers in ascending and descending order.• Using places of digits and commas to read large number easily, Using large numbers in applications.• In order to round off estimate the given number to nearest tens and hundreds and getting sum, differences and product easily.• Using Roman number rules, perform various arithmetic operations with them like sum, difference and product.	Verify commutative property of addition and multiplication by paper cutting and pasting.	
			2. Whole Numbers <ul style="list-style-type: none">• Whole Numbers• Successor and Predecessor• Operations on the number line• Properties of whole numbers• Pattern in whole numbers	<ul style="list-style-type: none">• Understanding the whole numbers by the concept of predecessor of 1.• Draw number line to represent whole numbers, recognizes successor/ predecessor of a given number.• Performs operation on whole numbers.• Simplify arithmetic expressions using properties of whole numbers, to perform verbal calculations.• Establish patterns using whole numbers, forming shapes using dots.	To find prime numbers from 1 to 100 by Sieve of Eratosthenes	

		May	3. Playing with Numbers <ul style="list-style-type: none"> • Factors and Multiples • Prime and Composite number • Test for divisibility of numbers 	<ul style="list-style-type: none"> • To find factors, find numbers which exactly divide the given number, find multiples of given numbers. • To find common factors and common multiples, listing down the factors and multiples of given numbers. • To find Prime and Composite number using factors of given number. • To find factors use divisibility rules of various numbers. 	To find the LCM of the given numbers by using number grid.	
PT-1 Max M:40 (Weightage 5 m)		July	3. Playing with Numbers (Cont.) <ul style="list-style-type: none"> • HCF and LCM • Common Factors and Common Multiples • Problems on HCF & LCM 	<ul style="list-style-type: none"> • To find HCF, list down common factors of the given numbers. • To find LCM, list down common multiples of the given numbers. • Solving real life problems using concept of LCM and HCF. 		30% of Term-1
			4. Basic Geometrical Ideas <ul style="list-style-type: none"> • A Point, A Line Segment, A Line, Ray, Parallel lines, Intersecting lines • Curves • Polygon • Angles • Triangle, Quadrilateral and Circle 	<ul style="list-style-type: none"> • To discuss the concept of a point, a line segment, a line, Ray, Parallel lines, intersecting lines using examples. • To discuss different types of curves • To draw rough sketch of polygons in order to describe its element. (Sides, Vertices and Diagonals) • To discuss concept of angle and its elements and give examples in order to name an angle in the given figure. • To discuss concept of Triangle, Quadrilaterals, Circle and its elements. To identify the parts of a circle. 	Geometrical representation of lines.	
		August	5. Understanding Elementary Shapes <ul style="list-style-type: none"> • Measuring Line Segment • Angles Right and Straight • Angle Acute, Obtuse and Reflex • Perpendicular line • Classification of Triangles • Quadrilateral 	<ul style="list-style-type: none"> • To compare the given line segments by measuring their length. • To classify angles based on the amount of rotation by examining rotation. • To classify angles as acute, obtuse and reflex according to their measure. • To discuss concept of Perpendicular lines and perpendicular bisectors using examples. • To classify the types of triangles on the basis sides and angles. • To classify the types of Quadrilaterals based on their properties. 	To classify triangles on the basis of sides and angles from group of triangles.	

			<ul style="list-style-type: none"> • Polygons • 3-Dimensional shapes 	<ul style="list-style-type: none"> • To examine the given figures in order to identify polygons based on its sides. • To discuss concept of three-dimensional shapes. 		30+20=50% of Annual Syllabus
			6. Integers <ul style="list-style-type: none"> • Introduction • Integers • Addition/ Subtraction of Integers 	<ul style="list-style-type: none"> • To understand positive and negative number and zero using concept of successor/ predecessor. • To represent integers on number line and to determine order of integers and compare them. • To perform arithmetic operations on integers by representing them on number line and using rules of integers operation to find the integers. 	Addition of integers with the help of coloured button	
	PT-2 Max M:80 (Weightage 80 m)	September	7. Fractions <ul style="list-style-type: none"> • A Fraction • Types of Fractions • Comparing Fractions • Addition and Subtraction of Fractions 	<ul style="list-style-type: none"> • To discuss concept of fraction and to identify numerator and denominator by showing them on number line. • To understand the types of fractions. (Proper, Improper, mixed, like, unlike and equivalent fraction). • To compare like/unlike fractions. • Solve like and unlike fraction (addition/subtraction). 	Forming proper fraction with the help of paper cutting and pasting.	
TERM-2 OCT TO MARCH		October	8. Decimals <ul style="list-style-type: none"> • Introduction • Tenth and Hundredths • Using Decimals • Addition and Subtraction of Decimals 	<ul style="list-style-type: none"> • To discuss the concept of decimal in order to know the meaning and relevance of dot point. • Determine the place of the digits of a decimal number in order to write it in words. • Determine the place value of decimal numbers up to tenth and hundred in order to write the number in expanded form. • Represent/Convert the money, length and weight into smaller units in order to represent it into decimal form. • Add and subtract the whole and parts of decimal numbers in order to find their sum and difference. 	To represent decimals numbers 0.25, 0.5 etc. on 10x10 grid by shading.	
		November	9. Data Handling <ul style="list-style-type: none"> • Recording of data • Organisation of Data • Pictograph • Bar Graph 	<ul style="list-style-type: none"> • Observe different tables in order to gather the information recorded in the table. • Organise raw data into a table using tally marks in order to organize the given data. • Observe pictograph and find meaningful inferences. • Draw a pictograph in order to represent the given information using appropriate symbols. • Observe bar graph in order to reason the information presented. 	Collecting data from students regarding time spent in watching TV and representing it by bar graph.	

<p style="text-align: center;">PT-3 Max M:40 (Weightage 5 m)</p>			<ul style="list-style-type: none"> Choose an appropriate scale to draw the bar graph and find the relevant information from it. 		<p style="text-align: center;">30% OF Term-2</p>
		10. Mensuration <ul style="list-style-type: none"> Perimeter Area 	<ul style="list-style-type: none"> Give example(s) in order to define perimeter of closed figures, Deduce and apply the formula to determine the perimeter. (Rectangle, Square and Regular polygon) Count the squares in order to estimate the area of the given closed curve in the squares grid sheet. Deduce and apply the formula in order to determine the area of a rectangle and square. 	Finding area of irregular figure by counting squares.	
	December	11. Algebra <ul style="list-style-type: none"> Introduction to Variable Match stick pattern Expressions with variable What is an Equation? 	<ul style="list-style-type: none"> Describe algebraic expressions in order to distinguish them from arithmetic expressions. Use variable with different operations in order to generalise a given situation. Examine patterns in order to identify relationship in patterns. Use variable with different operations in order to form an algebraic expression. Explain the meaning of an equation, using trial and error to find its solution. 	Relation between number of matchsticks and number of alphabet pattern.	
		12. Ratio and Proportion <ul style="list-style-type: none"> Ratio Proportion Unitary Method 	<ul style="list-style-type: none"> Compare two quantities in order to find their ratio. (same unit) Multiply/divide numerator and denominator by same number in order to find equivalent ratio. Compare ratio in order to determine whether they are in proportion. Solve the problems with the help of Unitary method in order to compute the value of one article, given the value of many. 	To study the concept of ratio by cutting and pasting.	
	January	13. Symmetry <ul style="list-style-type: none"> Introduction Reflection and Symmetry 	<ul style="list-style-type: none"> Explain the meaning of symmetry in order to identify symmetric figures in our surrounding. Draw line(s) of symmetry in order to classify the given shapes as shapes with no symmetry, one line of symmetry, two lines of symmetry or multiple lines of symmetry. 	Number of lines of symmetry by paper folding.	

	ANNUAL EXAMINATION Max M:80 (Weightage 80 m)			<ul style="list-style-type: none"> 2. Draw the mirror image of the given 2D shapes or objects in order to identify objects with reflection symmetry. 			
			14. Practical Geometry <ul style="list-style-type: none"> Introduction The Circle A Line Segment Perpendicular Angles 	<ul style="list-style-type: none"> Discuss the different tools of construction in order to describe their uses. Steps to construct a circle when its radius is known. Steps to construct a line segment when its length is known. Perpendicular to a line through a point on it and not on it. Construction of angles using protractor, using compass 60°, 120° and angle bisector (multiples of 15°) 	Representing different types of angles by paper folding.		
		February	Revision				
		March	Annual Exam				10% of Term-1 + Entire syllabus of Term-2a