BISHOP SCOTT BOYS' SCHOOL

STUDENT CURRICULUM MANUAL

Subject : MATHEMATICS	Class : VIII	Academic Plan : 2025-26

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
April	Chapter : 1 Rational number	Students will be able to • Enhance a systematic knowledge of rational number and its properties. • To deal real life situation with rational number. • Perform different operation with rational number.	Operation of rational number mentally. Computing rational number on different properties.	12	
	Chapter 3: Square and square roots	Students will be able to • Identify the squares of different types of number, fraction , algebraic terms. • Calculate square roots of any given terms..	Calculating square and square root of a given number using square grid sheet.	6	
	Chapter 23: Introduction to coordinate geometry	Students will be able to • Identify the location of a point on Cartesian plane. • Locate any coordinate on Cartesian plane.	Preparation of sign of coordinates of quadrants of Cartesian plane.	2	
May	Chapter : 2 Exponents	Students will able to • Understand that powers are the results of raising a base to an exponent. • Express large number in a concise way. • Solve different types of problems using laws of exponents.	Paper folding activity to understand the concept of powers.	3	
	Chapter : 4 Cube and cube roots	Students will able to • Find the cubes of any given number , algebraic terms • Determine cube roots of given expression	Preparing cube root clock	2	

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
June	Chapter : 5 Playing with number	Students will able to • Frame two digits and three digits number. • Determine missing digits in mathematical operations.	Class quiz for determining missing numerals in mathematical operations. (number puzzle , magic square)	3	
June	Chapter 6: Operations on Algebraic Expressions	Students will be able to • Understand the concept of variables, identifying constants. • Performing simple operations with algebraic expressions.	To verify the algebraic identity $(a+b)^2 = a^2 + 2ab + b^2$ experimentally	7	**PT 1 Portion** Chapter 1: Rational numbers Chapter 2 : Exponents Chapter 3: Squares and Square roots Chapter 4: Cubes and Cube roots Chapter 6: Operations on Algebraic expressions Chapter 22 : Introduction to coordinate geometry
July	Chapter 7: Factorization	Students will be able to • Find greatest common factor of given expressions. • Express quadratic expression into its factors.	Verification of $a^2-b^2 =(a+b)(a-b)$ Making of factor tree of any expression.	9	
July	Chapter 8 Linear Equations	Students will be able to • Solve equations in one variable algebraically. • Understand word problems using linear equations.	To solve linear equation using paper cut outs.	12	
July	Chapter 19 Three – Dimensional Figures	Students will be able to • Understand and three dimensional shapes like cube, cuboid , cone , pyramid etc. • Know about the vertices , edges and faces of shapes.	Making of 3 D shapes using net or paper cut outs.	4	
July	Chapter 19 Three – Dimensional Figures	Students will be able to • Understand and three dimensional shapes like Cube, Cuboid , Cone , Pyramid etc. • Know about the vertices, edges and faces of shapes.	Making of 3 D shapes using net or paper cut outs.	4	

Month	Chapter	Learning Objectives	Activity	Periods	Portion
August	Chapter 9: Percentage	Students will be able to • Understand that a percentage is a fraction with a denominator of 100. For example, 50% means 50 out of 100. • Students should be able to use percentages to solve problems in everyday life and in the classroom.	Analysis of the mark sheet using percentage.	6	Term 1 Portion Chapter 1: Rational numbers Chapter 2 : Exponents Chapter 3: Squares and Square roots Chapter 4: Cubes and Cube roots Chapter 5: Playing with Numbers Chapter 6: Operations on Algebraic expressions Chapter 7 : Factorization Chapter 8 : Linear equations Chapter 9: Percentage Chapter 14: Polygons Chapter 15 : Quadrilaterals Chapter 17 : Construction of quadrilaterals Chapter 19: 3 D figures
	Chapter 14: Polygons Chapter 15 : Quadrilaterals	Students will be able to • Understand open and close curve. • Identify different types of polygons. • Differentiate between regular and irregular polygons. • Students will able to • Understand about quadrilateral , its side , its vertex etc • Learn different types of quadrilateral along with its properties. • Prove sum of angles of a quadrilateral is 360^0.	Making of different polygons with the help of toothpicks or matchsticks. To show sum of angles of a quadrilateral is 360^0 experimentally.	4 4	
August	Chapter 17: Construction of quadrilaterals	Students will be able to • Construct different types of quadrilaterals like Rectangle , Squares , Parallelograms , Rhombus Trapezium	Construction of rectangles with the help broom sticks.	8	
September	REVISION FOR HALF YEARLY EXAMINATION				
October	Chapter 16 Parallelogram	Students will able to • Know the properties of a parallelogram • Sum of adjacent angle is 180^0.	Demonstration of sum of adjacent angles of a parallelogram is 180^0 experimentally.	6	

Month	Chapter	Learning Objectives	Activity	Periods	PT Portion
	Chapter 10: Profit and loss	Students will be able to • Understand to calculate profit and loss, analyzing financial statements, and understanding the concept of profit and loss in business.	Analysis of bank passbook of getting interest as profit and deduction via service and ATM charges as losses.	8	
November	Chapter 11 Compound interest	Students will able to • Know and use compound interest terminology. • Know when to pay interest. • Know and use formula for calculating compound interest.	Class demonstration of compounding money using virtual money.	12	PT - 2 Portion Chapter 16: Parallelogram Chapter 10: Profit and loss Chapter 11 : Compound Interest Chapter 12 : Direct and inverse proportions
	Chapter 12 Direct and inverse proportions	Students will be able to • Differentiate between direct and inverse variation. • Identify real life scenario that exhibits • Direct and inverse variation.	To show the relation between two quantities X and Y varying inversely using graph paper and color in row and columns as 12= 1x12 12=2x6 12=3x4	5	
	Chapter 13: Time and work	Students will be able to • Calculate time in years, month, and days. • Determine the efficiency of the person, time taken to complete the work.	Role play activity of solving a question in class in limited period of time to show the efficiency of student i.e. Inversely proportion to the time taken.	7	
December	Chapter 18: Area of trapezium and a Polygon	Students will be able to • Know about trapezium • Know about the height i.e taken between parallel side. • Calculate area using $\frac{1}{2}$(sum of parallel side)x height	Through paper cutting method calculating area of trapezium shaped figures.	5	

	Chapter 20: Volume and Surface Area of Solids	Students will be able to understand • Apply their knowledge of perimeter and area to solve real-life problems involving measurements of objects around them. • Analyze problems, identify relevant information, choose the appropriate formula, and perform calculations to find solutions. .	To find the circumference of the circle using thread	12	
December	Chapter:25 Probability	Students will be able to • Define probability and its features. • Understand probability as a fraction, decimals or percentage	Performing and noting outcomes of different trials on toss of 1 coin 2 coin 3 coin	5	
January	Chapter 21: Data handling	Students should be able to • Understand define each term, calculate them from a given data set, understand when to use each measure based on the data distribution, and interpret the results in real-world contexts; • Represents the average value, calculated by adding all data points and dividing by the total number of points.	To construct Histogram of given frequency table.	5	Term 2 Portion- Chapter 1: Rational Numbers Chapter 3 : Square and square root Chapter 6 : Operation on Algebraic Expression Chapter 10: Profit and Loss Chapter 13: Time and work Chapter 18 : Area of trapezium and a Polygon Chapter 20: Volume and Surface Area of Solids Chapter 21: Data handling
	Chapter 23: Line graph and Linear graph Chapter 24 : Pie charts	Students should be able to • Define line and linear graph • Identify its key components like axes and labels, interpret data presented visually. • Comparison of data via. graphs Students will be able to • Identify a pie chart and explain how it organizes the data. • Create own pie chart • Extract given information using given pie chart.	Demonstration of various data by line and linear graph. Creating a pie chart using given information with help of Data, ruler, pencil , eraser , sharpener, compass , protractor	4 3	

					Chapter 23: Line graph and Linear graph Chapter 24: Pie chart Chapter 25: Probability
February	**REVISION FOR ANNUAL EXAMINATION**				