ACADEMIC PLANNER 2022 - 2023
Subject : Mathematics
Class - VIII

DATE	TOPIC	SDG COVERED / INTERDISCIPLINARY VALUE BASED	ACTIVITY
April 1-15th April (10 days)	**Ch. 1 – Rational Numbers** Concept, properties of addition & multiplication of rational numbers, Rational number on number line, rational numbers between two rational numbers.	Life skills and values	Mini - Sudoku by solving equations
16- 30th April (13 days)	**Ch. 2 – Linear Equations** Solving equations, Applications, Solving equations with variable on both sides		
May 1-15th May (10 days)	**Ch. 2 – Linear Equations** Reducing equations to simpler forms Equations reducible to linear form	SDG Quality education worksheet	Playing with numbers (Magic square)
JULY 1-15th July (12 days)	**Ch. 3 Understanding quadrilaterals** Polygons, diagonals, convex & concave polygons Regular & irregular polygons, Angle sum property Exterior angles of a polygon, Special types & their properties	SDG zero hunger worksheet	To verify angle sum property of a Quadrilateral.
16- 31st July (13 days)	**Ch. 5 – Data Handling** Concepts of Pictograph, bar graph Frequency distribution, Histogram pie chart, chance and probability		
August 1-15th Aug. (9 days)	**Ch. 6 Squares & square roots** Introduction, properties, patterns, Finding square of a number square root by repeated subtraction prime factorization method, division method square root of decimals, estimating square roots.	Life skills and values	Finding Squares by Alternate Method.
16 -31st Aug. (13 days)	**Ch. 7 Cubes & cube roots** Introduction, cubes, patterns, prime factors Cube roots by prime factorization		
September 1-15th Sept. (12 days)	Revision for Term 1 examination		
16-30th Sept. (13 days)	**TERM - 1 EXAMINATION**		

October 1-15th Oct. (8 days)	**Ch. 9 Algebraic expressions & Identities** Expressions, terms, factors coefficient, types of polynomials, like & unlike terms Addition & subtraction of expressions	Life skills and values	$[(a+b)]^2=a^(2$ To verify the identity
16 -31st Oct. (10 days)	**Ch. 9 Algebraic expressions & Identities** Multiplication, patterns, multiplication of monomials multiplication of monomial with a polynomial Multiplication of a polynomial with a polynomial, Algebraic identities		

November 1-15th Nov. (11 days)	**Ch. 11 - Mensuration** Review, Area of trapezium, quadrilateral, Special quadrilateral, polygon, Surface area (Cube,Cuboid and Cylinder , Volume (cube, cuboid and cylinder)	SDG clean water and sanitation worksheet	To derive formula for TSA of a Cuboid.
16-30th Nov. (13 days)	**Ch. 12 Exponents & powers** Introduction, negative powers laws of exponents, Scientific notation **Ch. 13 – Direct and inverse proportion** Direct proportion, Inverse proportion		To explore the relationship between (a) length and perimeter (b) length and area of squares of different dimensions.

December 1-15th December (12 days)	**Ch. 14 Factorisation** Factors of natural numbers, algebraic expressions method of common factors, regrouping terms Factorisation using identities Division of algebraic expressions, Finding errors	percentage increase in population in different years	Visualising Solid Shapes(Verification of Euler's Formula for polyhedrons)
16-31st December (14 days)	**Ch. 8 – Comparing Quantities** Concept of ratio and percentage Increase and decrease as percent Discount, profit and loss, sales tax,compound interest (only simple problems to be done)		

January 1-15th January	**Winter Break**		
January 15 -31st January (13 days)	**Ch. 4 practical geometry** construction of parallelogram, rhombus, square & rectangle		To form Special Quadrilaterals by paper folding. (Kite and Rhombus)

February 1-15th Feb (12 days)	**Revision for Annual Examiations**
16-28th Feb (11 days)	**Annual Examinations**

TERMWISE SYLLABUS	
CLASS TEST - 1	**CH -1**
CLASS TEST - 2	**CH - 2**
TERM-1	**CH - 1,2,3,5,6,7**
CLASS TEST - 3	**CH - 9**
CLASS TEST - 4	**CH - 11**
ANNUAL EXAMINATION	**CH -4,9,11,12,13,14**