ACADEMIC PLANNER 2026-27
Subject : Mathematics
Class - VIII

DATE	TOPIC	HW	ACTIVITY/INTERDISCIPLINARY	LEARNING OUTCOMES
April **1-15th April** **(11 days)**	**BRIDGE COURSE** **Unit 2 - Power Play** Exponent Exponent Notation. Powers with Negative Exponents. Laws of Exponents. Power Lines Powers of 10. Scientific Notation A Pinch of History.	WS 2	Representing exponents by paper folding.	To understand exponential form To apply various laws of exponents To simplify expressions with powers To use negative integer exponents To express numbers in standard form
16- 30th April **(13 days)**	**Unit 1 - A Square and A Cube** Understanding Square Numbers. Square Roots Cubic Numbers. Cube Roots Moments from the Past.	WS 1	Finding square by alterante method. Finding sum of consecutive odd numbers.	Understand square numbers Understand cube numbers Identify properties of squares Identify properties of cubes Find square roots easily Find cube roots easily
May **(1-15th May)** **(6 days)**	**Unit 5- Number Play** Sum of Consecutive Numbers Properties of Divisibility Quick Divisibility Test Digits in Disguise (Cryptarithms)	WS 5	Cryptarithms Puzzle	Represent numbers in general form Understand divisibility rules algebraically Solve number based logic puzzles Relate number patterns to algebra
JULY **1-15th July** **(12 days)** **16- 31st July** **(14 days)**	**Unit 3-A Story of Numbers** The Need for Numbers. Understanding Number Systems Exploring Number Names. The Idea of a Base Place Value Representation. Key Principles Behind Modern Number Systems.	WS 3		Understand early counting methods Explain the concept of a base Describe different ancient number systems Appreciate the role of place value Recognise the importance of zero
	Unit 4 - Quadrilaterals Polygons Rectangles Rectangles and Squares: A Special Relationship. Angle Sum Property of a Quadrilateral... Parallelogram. Rhombus Kite and Trapezium Playing with Quadrilaterals	WS 4	Verification of angle sum property and exterior angle property.	Identify and define different types of quadrilaterals Understand and prove the properties of various quadrilaterals Apply the angle sum property of quadrilaterals Use the properties of quadrilaterals to construct them and solve geometric problems Recognise the relationships between different types of quadrilaterals

August **1-15th Aug.** **(11 days)**	**<u>Unit 7- Proportional Reasoning-1</u>** Identifying Proportional Changes in Shapes Ratios Ratios in their Simplest Form Solving Problems Using Proportional Reasoning The Rule of Three Dividing a Quantity in a Given Unit Conversions	WS 7		Understand the concept of ratio Identify proportional relationships Solve problems using proportion Apply the unitary method Understand diresct and inverse proportion
16 -31st Aug. **(11 days)**	**<u>Unit 3 -Proportional Reasoning-2(Part 2)</u>** Ratios in maps Ratios with more than two terms Dividing whole in give ratio Pie chart Inverse Proportion		Compare scale on map and actual distance between two cities.	Identify direct proportional relationships Calculate geographical map distances Construct accurate pie charts Solve inverse variation problems Simplify multi-term ratio mixtures
` **1-15th Sept.** **(11 days)**	REVISION FOR HALF YEARLY EXAMS			
16-30th Sept. **(13 days)**	HALF YEARLY EXAMS			
October **1-15th Oct.** **(11 days)** **16 -31st Oct.** **(9days)**	**<u>Unit 1-Fractions in Disguise(Part 2)</u>** Fractions a s percentage Percentages greater than 100 Using percentages		Project: Finding the healthiest snack based on proportions.	Define percentage as hundredths Convert fractions into percentages Analyse percentage-based growth Solve profit/loss/tax problems Compute values from percentages
November **1-15th Nov.** **(9 days)**	**<u>Unit 6 - We Distribute, Yet Things Multiply</u>** Properties of Multiplication. Special Cases of the Distributive Property One Problem, Many Paths	WS 6	Verification of algebraic idendities	Understand the distributive property Multiply algebraic expressions Use standard algebraic identities Apply identities to solve problems Relate algebra to geometry

16-30th Nov. **(12 days)**	**<u>Unit 4 - Exploring Some Geometric Themes(Part 2)</u>** Fractals Visulaising solids Nets of solids **<u>Unit 5 - Tales by Dots and Lines(Part 2)</u>** Mean Median Infrographics Line Graphs		Making koch snowflake. Nets of platonic solids. Make infographic using computer software. Building a gradesheet in spreadsheet.	Understand self-similar fractal patterns Construct nets for 3D solids Solve shortest path surface problems Create accurate isometric grid drawings Visualise objects from different views Understand mean and median using visual representations Analyse how changes in data affect mean and median Use spreadsheets to compute totals and averages Read and interpret line graphs and real-life data displays Calculate mean and median, including for frequency data
December 1-15th December **(12 days)**	**<u>Unit 2 The Baudhayana-Pythagoras Theorem(Part 2)</u>** Doubling a square Hypotenuse of isosceles right triangle Combining two different squares Right Triangles With Integer Side Lengths Application of theorems		Verification of phythagoras theorem.	Master square area doubling Identify irrational square roots Apply general right-angle theorems Generate primitive integer triples Solve complex geometric riddles
16-31st December **(13 days)**	**<u>Unit 6 - Algebra Play(Part 2)</u>** Number Pyramids Fun with grids Decoding Divisibility Tricks Story problems		Puzzles on pyramid grids.	Generalise numerical patterns algebraically Justify divisibility using variables Solve diverse number puzzles Optimize products using digits Identify relationships in grid

January **1 -31st January** **(17 days)**	**<u>Unit 7 - Area(Part 2)</u>** Understanding area Triangles Rhombus Area of any polygon		Verification of area of parallelogram.	Calculate areas of quadrilaterals Understand triangulation in polygons Relate triangles to parallels Solve real-world area problems
February **1-15th Feb** **(12 days)**	REVISION FOR ANNUAL EXAMS			
16-28th Feb **(12 days)**	ANNUAL EXAMS			

TERMWISE SYLLABUS		GK
UNIT TEST - 1	**CH 1,2**	CH- 14,15
HALF YEARLY EXAMINATION	**CH 1,2,4,5,7(Part 1)** **CH 3(Part 2)**	CH-16,17,18
UNIT TEST - 2	**CH - 1(Part 2)** **CH - 6 (Part 1)**	CH-19,20
ANNUAL EXAMINATION	**CH -1,4,6(Part 1)** **CH - 1,2,5,7(Part 2)**	CH-21,22,49

Note: UNIT 3 (Part1) , UNIT 4,6 (Part2) will be assessed through activity