SANT NANDLAL SMRITI VIDYA MANDIR, GHATSILA

YEARLY SYLLABUS OF MATHEMATICS

SESSION – 2025-26

STD – VIII

MONTH	NO OF WORKING DAYS	TOPIC TO BE TAUGHT	ACTIVITY	LEARNING OUTCOME	VALUES & SKILLS IMPARTED	ASSESSMENT
APRIL	21	1.Rational Numbers 2. Linear Equations in one Variable.	a) To understand the concept of convex and concave polygons by folding a paper "8" times in any way.	1. The student will learn to represent rational numbers on the number line. They will learn to verify various properties taking different values. 2. The student will be able to describe relationship between two variables in the physical world.	Practical and Utilitarian values Intellectual values & Disciplinary values.	Worksheet on Rational Numbers and Linear Equations in one Variable.
MAY	9	3.Understanding Quadrilaterals	b) To verify that the sum of interior angles of a quadrilateral is 360^0 by paper cutting and pasting method.	3. The students will be able to determine the similarities and differences between quadrilaterals by looking at their side, angle and diagonal measures.	Creativity, Accuracy & Aesthetic values.	Worksheet on Understanding Quadrilaterals Project on types of quadrilaterals.
JUNE	11	4. Data Handling	c) To verify that the sum of measures of the exterior angles of any polygon is 360^0 by paper cutting and pasting method.	4. The students will be able to develop the skill to collect, organise, display, analyse and interpret the data information.	Data interpretation & sufficiency.	Project on Data Handling. Worksheet on Data Handling
JULY	26	5. Squares and Square Roots	d) To verify that diagonals of a rectangle are of each length.	5. The students will be able to estimate square roots without using calculator.	Mathematical Understanding, problem-solving, Accuracy and Collaboration skills.	Worksheet on Squares and Square Roots

		6. Cubes and Cube Roots		6. Students will be able to grasp the concept of raising a number to the power of 3 to get its cube, as well as finding the number whose cube equals a given value.		Worksheet on Cubes and cube Roots
AUGUST	24	7. Comparing Quantities	e) To verify that in a parallelogram i) Opposite side are equal. ii) Opposite angles are equal. iii) Diagonals bisect each other.	7. The students will be able to calculate simple and compound interests, growth and depreciation. Also, they will be able to apply percentages to solve simple real-life problems involving taxation & rates.	Critical Thinking, Perseverance, Numerical skills and Problem – solving skills	Worksheet on Comparing Quantities
SEPTEMBER	21	**Revision & Half Yearly Examination**				
OCTOBER	18	8. Algebraic Expressions and Identities 9. Mensuration	f) To verify the algebraic identity $(x+a)(x+b)=x^2+ax+bx+ab$ $(x+a)(x+b)=x^2+(a+b)x+ab$ by activity method. g) To draw front view, top view and side view of	8. Students will be able to explore the meaning of identities & to distinguish between equations & identities & also will be able to discover & use the identities in solving the problems. 9. Students will be able to recognise informal units of measurements, differentiate standard & non-standard ways of	Logical Reasoning, Persistence, Accuracy, Symbolic Manipulation and Pattern Recognition Precision, Persistence, creativity, Spatial Visualization and Geometrical Application.	Worksheet on Algebraic Expressions and Identities Worksheet on Mensuration

			the shapes made by unit cube.	measurement, and relate length, breadth, perimeter & area.		
NOVEMBER	23	10. Exponents and Powers 11. Direct and Inverse Proportions	h) 8.To make cubes and cuboids of given dimensions using unit cubes and to calculate volume of each i)2x2x2 ii) 3x3x3 iii)4x3x2 iv)3x2x4	10. Students will be able to extend &explore the meaning of the index notation of numbers & also will be able to explore, understand and use the laws of integral indices to simplify simple algebraic expressions. 11. Students will be able to match quantities stays the same if they are divided. Students will learn to solve real life problems involving direct & inverse proportions.	Curiosity, Persistence, Conceptual Understanding and Problem – solving. Accuracy, Cooperation, Conceptual Understanding and Critical Thinking.	Worksheet on Exponents and Powers Worksheet on Direct and Inverse Proportions
DECEMBER	19	12. Factorisation	i) To explore the relationship between i) Length(in cm) and perimeter (in cm)	12. Students will be able to factorize polynomials by various methods such as common factors, grouping of terms & by using identities.	Patience, Resilience, Collaboration, Problem – Solving and Critical Thinking skills.	Worksheet on Factorisation.
JANUARY	22	13. Introduction to Graphs	ii) Length (in cm) and area (in cm^2) of 5 squares of different dimensions 5 rectangles of different dimensions drawn on a square paper Find the formula to calculate curved surface area of right circular cone.	13. Students will develop the ability to interpret data presented in graphical form and will be able to solve problems graphically using mathematical reasoning and logic, promoting problem – solving skills.	Data interpretation & sufficiency	Worksheet on Graphs

February	22	**Revision & Annual Examination**				

Subject Teacher – JOLLY PRADHAN, MITHU DUTTA, SWARAJ RANA **Principal**