SANT NANDLAL SMRITI VIDYA MANDIR, GHATSILA

SYLLABUS – STD.VII SESSION – 2025-26

Yearly Syllabus of Mathematics

MONTH	WORKING DAYs	TOPICS TO BE TAUGHT	ACTIVITY	LEARNING OUT COME	VALUE IMPARTED	ASSESSMENT
APRIL	**21**	**Integers** * Introduction * Properties of Addition, Subtraction, Multiplication & Division of Integers **Fractions & Decimals** * Introduction * Multiplication of Fractions * Multiplication of Fractions by Fractions * Division of Fractions * Divisions of Whole Number by a Fraction * Division of a Fraction by another Fraction * Comparing of Decimals * Decimal Number in Expanded Form * Multiplication of Decimal Numbers * Division of Decimal Numbers	To represent the following products of decimal numbers on a square by drawing horizontal/vertical lines and shading. i) 0.3x0.7 ii)0.5x0.5	The learners will be able to: * Add, subtract, multiply and divide integers * understand & solve word problems * Simplify numerical expressions * Calculate the product of fractions & decimals	Learn how to deal with positivity and negativity. To develop sharing idea in life.	*Exercise question answer from text book. *Questions from other reference book related to topic. *Multiple choose questions. *Different Magic square. * Exercise question answer from text book. *Questions from other reference book related to topic. *Multiple choose questions. *Oral questions answer *Class test (10marks)

May	**9**	**Rational Numbers** * Introduction * Equivalent Rational Numbers * Positive & Negative Rational Numbers * Rational Numbers on a Number Line * Rational Number in Standard Form	To identify the condition under which the given pairs of angles are complementary	* Distinguish between fraction and rational numbers * Identify and represent rational numbers on number line * Do operations on rational number	Develop the values of unity in diversity.	* Exercise question answer from text book. *Questions from other reference book related to topic. *Multiple choose questions. *Oral test *Class test (10 marks)
		* Comparison of Rational Numbers * Rational Numbers between two Rational Numbers * Operations on Rational Numbers				
June	**11**	**Lines and Angles** * Introduction * Lines, Line Segment, Angles * Complementary & Supplementary Angles * Adjacent Angles * Linear Pairs * Vertically Opposite Angles * Intersecting Lines * Transversal * Angles made by Transversal and Parallel Lines	To verify by paper cutting and pasting, that if two parallel lines are intersected by a transversal then i) each pair of corresponding angles are equal ii)each pair of alternate internate angles are equal iii) each pair of interior angles on the same side of the transversal are supplementary.	* define line, line segment, ray, types of angles * Calculate complement and supplement of a given angles * Demonstrate the properties of parallel line with a transversal	To focus on a particular goal in a life	*Draw angles *Identify complementary and supplementary pair. * Exercise question answer from text book. *Questions from other reference book related to topic. Class test (10 marks)
July	**26**	**The Triangles & its properties** * Introduction	To get a median of a triangle from any vertex, by	* Identify the six elements of a triangle * Prove the sum of	Gain confidence about shapes and sizes.	* Exercise question answer from text book. *Questions from other

		* Medians of a Triangles * Altitudes of a Triangles * Exterior Angles of a Triangles and its properties * Angle sum property of a Triangle * Equilateral Triangles & Isosceles Triangles * Sum of the lengths of two sides of a Triangles * Right angled triangles and Pythagoras properties	paper folding.	angles of all interior angles of a triangle is 180° * Understand, verify and apply result of the Pythagoras theorem		reference book. *Multiple choose questions. *Oral questions answers * Differentiate between Median and Altitude Class test (10 marks) *Activity based questions * Exercise question answer from text book. *Questions from other reference book related to topic. *Multiple choose questions. *Oral questions answer Class test (10 marks)
August	**24**	**Simple Equations** * Introduction * Definition of Equation * Solving an Equation * Applications of Simple Equations to Practical situations	To get a median of a given triangle from any vertex by paper folding and to verify that in a triangle, medians pass through a single point.	* Differentiate between an equality and an equation * Apply simple equations to solve daily life problems	Develop the value of reasoning and problem solving.	* Exercise question answer from text book *Questions from other reference book related to topic. *Multiple choose questions. *Oral questions answer *Class test (10 marks)
September	**21**	**Revision & Half Yearly Examination**				

October	**18**	**Comparing Quantities** * Introduction * Equivalent Ratio * Percentage * Converting Fractional Numbers to Percentage * Converting Decimal Numbers to Percentage * Use of Percentage * Ratios to Per cents * Increase and Decease as Per cents * Profit & Loss as Per cents * Simple Interest * Interest for Multiple Years		* Understand percentage as a fraction with denominator 100 * Convert a fraction, a ratio, a decimal into per cent * Determine CP, SP, Profit and Loss in a transaction * Calculate SI, Amount, Principal, Rate and Time period on deposit and loan	Compare and recognize various situations and make decisions accordingly.	* Exercise question answer from text book. *Ask uses of real-life situations. *Questions from other reference book related to topic. *Multiple choose questions. *Oral questions answer *Class test (10 marks)

November	**23**	**Data Handling** * Introduction * Collecting Data, Organization of Data * Arithmetic Mean, Range, Mode , Median * Bar Graph & Double Bar Graph * Chances and Probability **Perimeter and Area** * Introduction * Perimeter of : Square, Rectangle & Triangle * Area of : Square, Rectangle, Triangle & Parallelogram * Circles : Circumference & Area * Applications of Perimeter & Area	To compare the marks obtained the marks obtained in all the subjects by a student in the first and second term examination by drawing a bar graph using paper cutting and pasting. To find the ratio of circumference of a circle to its diameter.	* Collect and organize data * Calculate mean, median and mode * Construct and interpret bar graph and double bar graph * Understand the concept of probability * Determine the probability of an event * Calculate perimeter and area of: square, rectangle, triangle, parallelogram * Calculate the area and circumference of circle	Learn managing and processing various information Recognize his / her own limits in a particular field.	* Exercise question answer from text book. *Questions from other reference book related to text book. *Draw Graph *Oral questions answer *Class test (10 marks)
December	**19**	**Algebraic Expression** * Introduction * Variable, Constant, Factors, Terms, Co-efficient * Like & Unlike Terms * Monomial, Binomial, Trinomial & polynomial * Addition & Subtraction of Algebraic Equations * Finding the value of an Expression * Pattern in Geometry	To check whether the given shape has rotational symmetry. To find the order of rotational symmetry of some Geometrical figures.	* Identify Variable, Constant, Factors, Terms, Co-efficient * Identify like and unlike terms * Add and subtract algebraic expression	Develop the value of reasoning and problem solving.	* Exercise question answer from text book. *Questions from other reference book related to topic. *Multiple choose questions. *Oral questions answer *Class Test(10marks)

January	**22**	**Exponents & Powers** * Introduction * Exponent Form * Laws of Exponents * Decimal Number System * Expressing Large Numbers in the Standard Form **Symmetry** * Introduction * Lines of Symmetry for Regular Polygon * Rotational Symmetry * Angle of Rotation & Centre of Rotation * Lines & Rotational Symmetry **Visualizing Solid Shapes** * Introduction – Plane Figure & Solid Shape * Faces, Edges and Vertices * Net for building 3D Shapes * Oblique Sketch & Isomorphic Sketch * Shadow Play	i)To draw a cube with given edge (say 5 cm long) on an isometric dot paper and to draw its oblique sketch on the squared paper. ii) To draw a cuboid of given dimensions (say 7 units,4 units and 2 units) on an isometric dot paper and to draw its oblique sketch on the squared paper.	* Write a whole number in exponential form and vice-versa * Find the reciprocal of a rational number and its exponential form * Apply the laws of exponents * Recognize rotational and line of symmetry * Draw all possible lines of symmetry of a given shape * State the Centre and the order of rotational symmetry * Distinguish between 2D and 3D shapes * Find the number of faces, edges and vertices of a 3D shape	Understand the power of exponents of certain things in this real world. Understanding the concept of similarity.	* Exercise question answer from text book. *Questions from other reference book related to text book. *Definition *Simplifications * Laws of exponents *Identify symmetrical shapes & figures *Draw regular figures. *Find rotational order of different geometrical shapes. * Exercise question answer from text book. *Multiple choose questions. *Oral questions answer * Activity based on Shadow Play *Class (10 marks)
February	**22**	**Revision & Annual Examination**				

Subject Teacher: Mithu Dutta &Jolly Pradhan **Principal**