CAMBRIAN PUBLIC SCHOOL

KANKE ROAD, RANCHI

SESSION: 2024-25

LEARNING OUTCOMES

CLASS: VIII SUBJECT: MATHS

MONTHS	CHAPTER	LEARNING OUTCOMES
APRIL	Chapter-1: Rational Numbers Chapter-2: Exponents and powers	The learner: • Defines rational numbers. • Generalizes properties of addition, subtraction, multiplication and division of rational numbers through patterns. • Finds out desired amount of rational numbers between two given rational numbers. • Represents rational numbers on a number line. The learner: • Writes large and very small umbers using exponents. • Solves problems with integral exponents. • Generalizes laws of exponents through simplifications. • Finds the sum of very large numbers using standard form.
MAY	Chapter-3: Squares and square roots	The learner: • Identifies a square number • Generalizes the properties of square numbers. • Proves divisibility rules of 2, 3, 4, 5, 6, 9 and 11. • Applies patterns in square numbers to solve puzzles. • Finds squares and square roots of numbers using different methods.
JUNE	Chapter-4: Cubes and cube roots	The learner: • Expresses cube number and explores the one's digit of cubes of numbers ending in 2, 3, 4 etc. • Generalizes interesting

		patterns of cube numbers. • Finds cubes and cube root of numbers through prime factorization method.
JULY	Chapter-6: Operations on Algebraic Chapter-7: Factorization	The learner: • Classifies a polynomial as monomial, binomial or trinomial. • Constructs as many polynomials as possible using variables. • Perform different operations such as addition, multiplication and subtraction of algebraic expressions. • Uses various algebraic identities in solving problems of daily life. The learner: • Expresses algebraic expressions as product of their factors. • Factorizes algebraic expressions by the method of common factors and regrouping terms. • Solves problems based on the division of one polynomial by another. • Verifies the idea of inverse operation of multiplication (i.e. division) for algebraic expressions.
AUGUST	Chapter-8: Linear equations in one variable Chapter-8: Comparing quantities(NCERT)	The learner: • Identifies a linear equation in one variable. • Finds solution of a linear equation in one variable. • Verifies the solution of a linear equation. • Applies concept of linear equation to deal with real life problems. The learner: • Finds ratio to compare two quantities of the same type. • Calculates increase or decrease percent. • Applies the concept of percent in profit and loss situation. • Finds discount percent and value added tax applying the concept of percent.
OCTOBER	Chapter-12: Direct and inverse	The learner:

	proportions Chapter-14: Polygon	• Writes few situations where change in one quantity leads to change in another quantity. • Cites examples from real- life situations based on the concept of direct and inverse proportions. • Solves problems based on direct and inverse proportions. The learner: • Represents convex and concave polygons. • Classifies polygon on the basis of its sides
NOVEMBER	Chapter-15: Quadrilaterals Chapter-16: Parallelogram Chapter-17:Construction of Quadrilaterals	The learner: • Represents convex and concave polygons. • Classifies polygon on the basis of its sides. • Solves problems related to angles of a quadrilateral using angle-sum property. • Verifies properties of parallelogram and establishes relationship between them through reasoning. The learner: • Verifies the requirement of five measurements to determine a quadrilateral uniquely. • Constructs different quadrilaterals using compasses and straight edge. • Draws rough sketches of the quadrilateral to justify the construction.
DECEMBER	Chapter-18:Area of Trapezium Chapter-20: Volume and Surface Area of Solids Chapter-21:Data Handling	The learner: • Estimates the area of shapes like trapezium and other polygons by using square grid/ graph sheet. • Verifies the area of trapezium and other polygons using formulae. • Finds the area of a polygon. • Finds surface area and volume of cuboidal and cylindrical objects. • Applies the concept of surface area and volume to solve real life problems.

JANUARY	Chapter-23:Line graph and Linear graph Chapter-24:Pie Charts Chapter-25: Probability	The learner: • Extrapolates (a graph, curve, or range of values) by inferring unknown values from trends in the known data. • Locates points on a graph sheet. • Fixes a point in a Cartesian plane. • Finds the coordinates of a point in a Cartesian plane. • Draws a linear graph and verifies relation between dependent and independent variable. • Concept of Probability