Sample Learning Indicators – Mathematics - Class 1 to 8

Topics	Conceptual Areas	Learning Indicators
Numbers and Operations	• Understands and perform multiplication and division of integers. • Solves problem using operations on integers. • Defines rational numbers	• Classifies numbers in various categories including natural integers, even, odd, prime, composite, a-prime etc. • Freely uses four fundamental operations in day to day activities
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Rational Numbers	• Represent rational numbers on the number line	• Represent a rational number as decimal and attempts to form values for operations on decimal fractions • Describe properties of rational numbers and express them in general form. Understands that between any two rational numbers, a rational number lies.
Algebra .	• Understanding of variables and constants. • Understanding of Monomial, Binomials, and Polynomials	• Describes variables and constants • Recognizes polynomials of one variable and two variables and freely uses operations on polynomials • Plots graphs of linear equation
Set Operations	• Presentation of sets, Venn diagram, Application of sets.	• Represent sets in different terms and uses Venn's

			Diagrams applies notion of sets.
Euclid's Geometry/Lines and Angles Congruence of Triangles	• Differentiate between different geometrical figures • Describe pair of angles interior angles, external angles and the sum of angles in a triangle is 180 • Properties of triangles • Properties of triangles • Recalls reflection symmetry • Examine congruence through super position • Properties of Quadrilaterals • Angle Sum Properly • Properties of Parallelogram		• Classified triangles into different groups on the basis of angles and sides. • Classifies quadrilaterals on the basis of their properties • Verifies sum of angles in a triangle as 180 , exterior angles as the sum of interior angles and other properties. • Establish congruence for triangles and circles • Involves criteria of congruence SSS, SAS, ASA, RHS. • Appreciate that only three elements of two triangles are sufficient to find their congruence. • Construct simple triangles when three out of six elements are given. • Generalise sum of angles of a quadrilateral and uses in solving various problems related to finding angles of a quadrilateral • Explains properties of parallelogram and tries to reason out how one property is related to others.
MENSURATION	• Understand the concept of perimeters, circumference, area & volume • Idea of a circumference of a circle • Area of trapezium and polygon		• Measures are perimeter of sample, regular and irregular, closed shapes. • Forms formulate to find area of the region enclosed in a rectangle and a square • Measures area of circles.

		• Finds area of trapezium, and polygons by using square grid and also by using formulae
STATISTICS	• Data Handling • Understands the use of organising data • Represent data through pictography Bar graphs	• Identifies daily life situation in which the information is required to be properly arranged in terms of tables • Child tries to represent data as pictures, graphs