



Curriculum
Session – 2023-24
Subject- Mathematics (041)
Class –IX

Month	FEB	MARCH	APRIL	MAY	JUNE
Concepts	Ch. 1 Numbers Systems	Ch.2 Polynomials Ch.3 Coordinate Geometry Ch. 4 Linear Equations in two variables	Ch. 4 Linear Equations in two variables (Contd.) Ch.5 Introduction to Euclid's Geometry	Ch. 6 Lines and Angles Ch. 7 Triangles	Ch.8 Quadrilaterals
Learning Outcomes	Students will be able to <ul style="list-style-type: none"> Understand the meaning of irrational numbers Represent irrational numbers on the number line. Construct a square root spiral. Understand decimal expansion of real numbers and their representation in the form p/q. Comprehend the term rationalization of the denominator along with the rationalizing factor. Apply Laws of Exponents for Real Numbers 	Students will be able to <ul style="list-style-type: none"> Understand the polynomials and their types. . Solve zeros of polynomials Understand and apply the Remainder and Factor theorem in polynomials. Understand Factorization of polynomials by using algebraic identities. Explore linear equations in two variables. Understand the meaning of Coordinate Geometry and its origin Locate and analyze the position of an object or a point in a plane. 	Students will be able to <ul style="list-style-type: none"> Draw the graph of a Linear Equation in Two Variables related to real life situations. Define and understand Euclid's Definitions, Axioms and Postulates. 	Students will be able to <ul style="list-style-type: none"> Recognize pairs of angles and classify them. Know and demonstrate the ability to find correct criteria for congruence of triangles. 	Students will be able to <ul style="list-style-type: none"> Recognize the properties of parallelograms. Apply midpoint theorem
Skills	Knowledge/Understanding/Application/Critical Thinking	Knowledge/Understanding/Critical Thinking/Problem Solving	Knowledge/Understanding/Application/Evaluation	Knowledge/Understanding/Application/Critical Thinking	Knowledge/Understanding/Application/Problem Solving
Activities	Competency-skill based activity/Experiential Learning: To construct a square root spiral(Lab Manual)	Competency-skill based activity/Experiential Learning: To find the values of abscissa and ordinates of various points given in a Cartesian plane. (Lab Manual)	Competency-skill based activity/Experiential Learning: Graph paper for linear equations.	Competency-skill based activity/Experiential Learning: Hands on activity (lines and angles)	Competency-skill based activity/Experiential Learning: Mid-point Theorem, paper folding and cutting
Assessments	<ul style="list-style-type: none"> Periodic Tests Multiple Assessments Portfolio Student Enrichment Activities-practical work Main Book: NCERT				



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Month	JULY/AUGUST	SEPTEMBER	OCTOBER	NOVEMBER/DECEMBER
Concepts	Ch. 10 Circles	Ch.12 Heron's Formula	Ch.13 Surface area and Volume	Ch. 14 Statistics
Learning Outcomes	<p>Students will be able to</p> <ul style="list-style-type: none"> Describe circles and its Related Terms. Demonstrate angles Subtended by a Chord and an Arc and perpendicular from the Centre to a Chord. Describe a cyclic Quadrilateral. 	<p>Students will be able to</p> <ul style="list-style-type: none"> Identify and apply heron's formula in finding areas of polygon. Calculate area of a triangle by Heron's Formula 	<p>Students will be able to</p> <ul style="list-style-type: none"> Describe surface Area of a right circular cone, sphere and hemisphere. Formulate volume of a right circular cone, sphere and hemisphere. 	<p>Students will be able to</p> <ul style="list-style-type: none"> Represent data graphically Recapitulate all the concepts
Skills	Knowledge/Understanding/Application/Critical Thinking/Analysis/Synthesis	Knowledge/Understanding/Application/Critical Thinking/Problem Solving	Knowledge/Understanding/Application/Analysis/Synthesis	Knowledge/Understanding/Application/Analysis/Synthesis
Activities	<p>Competency-skill based activity/Experiential Learning: Angle subtended by an arc of a circle at the center is double the angle subtended by it at any point on the remaining part of the circle using.</p> <p>(Lab Manual)</p>	<p>Competency-skill based activity/Experiential Learning: To find area of a triangle by Heron's Formula.</p> <p>(Lab Manual)</p>	<p>Competency-skill based activity/Experiential Learning: To form a cone from a sector of a circle and to find the formula for its curved surface area</p> <p>(Lab Manual)</p>	<p>Competency-skill based activity/Experiential Learning: To draw histograms for classes of equal widths by collecting data from day to day life such as heights of students.</p> <p>(Lab Manual)</p>
Assessments	<ul style="list-style-type: none"> Periodic Tests Multiple Assessments Portfolio Student Enrichment Activities-practical work <p>Main Book: NCERT</p>			