Curriculum

Session – 2022-23

Subject- Mathematics

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 Angels Ch. 7 Triangles	Ch.8 Quadrilaterals
Learning Outcomes	**Students will be able to** ● 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** ● 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** ● 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** ● 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** ● 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	● **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	**Students will be able to** ● 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.	**Students will be able to** ● Identify and apply heron's formula in finding areas of polygon. ● Calculate area of a triangle by Heron's Formula	**Students will be able to** ● Describe surface Area of a right circular cone, sphere and hemisphere. ● Formulate volume of a right circular cone, sphere and hemisphere.	**Students will be able to** ● 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	**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. **(Lab Manual)**	**Competency-skill based activity/Experiential Learning**: To find area of a triangle by Heron's Formula. **(Lab Manual)**	**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 **(Lab Manual)**	**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. **(Lab Manual)**
Assessments	● **Periodic Tests** ● **Multiple Assessments** ● **Portfolio** ● **Student Enrichment Activities-practical work** **Main Book: NCERT**			