

Curriculum
Session – 2022-23
Subject- Mathematics
Class –X

Month	February	March	April	May	June
QConcepts	Ch. 1 Real Numbers	Ch. 2 Polynomials Ch. 3 Pair of Linear equations in two variables	Ch. 3 Pair of Linear equations in two variables(contd.) Ch. 4 Quadratic Equations	Ch. 5 Arithmetic Progression Ch. 6 Triangles	Ch. 6 Triangles(contd.) Ch. 7 Coordinate Geometry
Learning Outcomes	Students will be able to: <ul style="list-style-type: none"> Understand Fundamental theorem of arithmetic Understand the proofs of irrationality of $\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$ etc. 	Students will be able to: <ul style="list-style-type: none"> Recall the concept of Polynomials Find Zeros of Polynomials Understand Geometrical meaning of zeroes and coefficients of Linear and Quadratic polynomials Identify different Coordinate axis and plot points on them. Understand the conditions of consistency for linear equations. Identify the correct method for solving the linear equations. 	Students will be able to: <ul style="list-style-type: none"> Solve linear equations with different methods Differentiate between a quadratic polynomial and a quadratic equation Find the different methods to solve quadratic equations Applications of the concept to solve everyday problems. 	Students will be able to: <ul style="list-style-type: none"> Recognise an Arithmetic Progression Find the given terms and sum of the given Arithmetic Progression Solve a given application based question through real life situations Identify the difference between Congruency and Similarities of triangles Apply Basic Proportionality theorem and its converse Understand the criteria for Similarity of triangles 	Students will be able to: <ul style="list-style-type: none"> Understand the concept of Coordinate geometry Find the distance between two points using their coordinates Use of section formula
Skills	Knowledge/Understanding/Critical Thinking/Problem Solving	Knowledge/Understanding/Critical Thinking/Problem Solving	Knowledge/Understanding/Critical Thinking/Problem Solving/Evaluation	Knowledge/Understanding/Critical Thinking/Problem Solving/Application	Knowledge/Understanding/Critical Thinking/Problem Solving
Activities	Competency-skill based activity/Experiential Learning: Based on HCF and LCM	Competency-skill based activity/Experiential Learning: Graph Paper - Based on the conditions for consistency of a system of linear equations in two variables by graphical representation.	Competency-skill based activity/Experiential Learning: Based on Factorisation	Competency-skill based activity/Experiential Learning: Based on the Arithmetic Progression and its sums	Competency-skill based activity/Experiential Learning: Based on Proportionality theorem and Pythagoras theorem
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	<ul style="list-style-type: none"> • Introduction to Trigonometry • Applications of Trigonometry 	<ul style="list-style-type: none"> • Circles • Areas related to Circles 	<ul style="list-style-type: none"> • Surface Area and Volume • Statistics 	<ul style="list-style-type: none"> • Probability • Revision
Learning Outcomes	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Use Pythagoras theorem in right angled triangle • Identify Trigonometry ratios and apply them • Use different identities to prove the given results • Apply Trigonometry to find angle of elevation/ depression and in various fields such as Physics, Engineering, Navigation, Seismology and Art 	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Understand the difference between Secant and Tangents to the circle • Learn that only one tangent can pass through a point lie on the circle • Observe that tangent to any point of a circle is perpendicular to the radius through the point of contact and apply it • Calculate the areas and perimeter of the Circle, area of a given segment or sector of the circle, the length of major and minor arc and the area of combination of plane figures 	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Identify the 3-D shapes combined to form an object • Determine Surface area of combination of different solids • Make formulas for Volume of a combination of solids • Convert one solid form to another • Solve the questions based on mean, median and mode of grouped data • Find mean by different methods 	<ul style="list-style-type: none"> • Differentiate between experimental and Theoretical Probability • Differentiate between equally likely and not equally likely outcome • Understand Sure and impossible event • Solve the problems based on single events • Recapitulate all the concepts
Skills	Knowledge/Understanding/ Critical Thinking/Problem Solving/Application	Knowledge/Understanding/Critical Thinking/Problem Solving	Knowledge/Understanding/ Application/Critical Thinking/Problem Solving	Knowledge/Understanding/ Application/Critical Thinking/Problem Solving
Activities	Competency-skill based activity/Experiential Learning: Based on Trigonometry	Competency-skill based activity/Experiential Learning: Area of sector formed at the vertices of triangle	Competency-skill based activity/Experiential Learning: Based on Surface area and volume of cylinder and cone.	Competency-skill based activity/Experiential Learning: Based on Probability
Assessments	<ul style="list-style-type: none"> • Periodic Tests • Multiple Assessments • Portfolio • Student Enrichment Activities-practical work <p>Main Book: NCERT</p>			