

Curriculum Subject: Mathematics (041) Class: X Session: 2024-25

| Month | April | Мау | June | July | | | |
|----------------------|--|--|--|---|--|--|--|
| Concepts | Ch. 1 Real Numbers Ch.2 Polynomials | Ch. 3 Pair of Linear equations in two variables | Ch. 4 Quadratic Equations | Ch. 5 Arithmetic Progression Ch. 6 Triangles | | | |
| Learning Outcomes | Students will be able to: • Understand Fundamental theorem of arithmetic. • Understand the proofs of irrationality of √2, √3, √5 etc. • Recall the concept of Polynomials. • Find Zeros of Polynomials. | Coordinate axis and plot points on them. Understand the conditions of consistency for linear | Students will be able to: 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: 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. | | | |
| 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 | | | |
| 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. | | | |
| Art Integration | History, English | English, Science | English, Science | English, Art | | | |
| Assessments | Periodic Tests Multiple Assessments Portfolio Student Enrichment Activities-practical work Main Book: NCERT | | | | | | |



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| Month | August | September | October | November | December |
|----------------------|---|---|--|--|--|
| Concepts | Ch. 6 Triangles(contd.) Ch. 7 Coordinate Geometry | Ch.8 Introduction to Trigonometry Ch.9 Applications of Trigonometry | Ch.10 Circles Ch.12 Areas related to Circles | Ch.13 Surface Area and Volume Ch.14 Statistics Ch.15 Probability | • Revision |
| Learning Outcomes | Students will be able to: • Understand the concept of Coordinate geometry. • Find the distance between two points using their coordinates. • Use of section formula. | Students will be able to: Use Pythagoras theorem in a 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. | Students will be able to: 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. | Students will be able to: 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. Differentiate between experimental and Theoretical Probability. Differentiate between equally likely and not equally likely and not equally likely outcome. Understand Sure and impossible event. Solve the problems based on single events. | Students will be able to Recapitulate all the concepts. |
| Skills | Knowledge/ Understanding/ Critical Thinking/ Problem Solving | 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 Proportionality theorem and Pythagoras theorem. | Competency-skills based activity/ Experiential Learning: Based on Trigonometry. | Competency-skills based activity/ Experiential Learning: Area of sector formed at the vertices of the triangle. | Competency-skills based activity/ Experiential Learning: Based on Surface area and volume of cylinder and cone. | Competency- skill based activity/ Experiential Learning: Based on Probability. |
| Art Integration | English, Art, Physics | English, Art, Physics | English, Art, Physics | English, Art, Physics | |
| Assessments | Multiple AssePortfolio | ssments chment Activities-practic | al work | | |