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

| Month | April | May | June | July |
| :---: | :---: | :---: | :---: | :---: |
| Concepts | Ch. 1 Real Numbers <br> Ch. 2 Polynomials | Ch. 3 Pair of Linear equations in two variables | Ch. 4 Quadratic Equations | Ch. 5 Arithmetic Progression <br> Ch. 6 Triangles |
| Learning Outcomes | Students will be able to: <br> - Understand Fundamental theorem of arithmetic. <br> - Understand the proofs of irrationality of $\sqrt{2}, \sqrt{3}, \sqrt{5}$ etc. <br> - Recall the concept of Polynomials. <br> - Find Zeros of Polynomials. | Students will be able to: <br> - Identify different Coordinate axis and plot points on them. <br> - Understand the conditions of consistency for linear equations. <br> - Identify the correct method for solving the linear equations. <br> - Solve linear equations with different methods. | Students will be able to: <br> - Differentiate between a quadratic polynomial and a quadratic equation. <br> - Find the different methods to solve quadratic equations. <br> - Applications of the concept to solve everyday problems. | Students will be able to: <br> - Recognise an Arithmetic Progression. <br> - Find the given terms and sum of the given Arithmetic Progression. <br> - Solve a given application based question through real life situations. <br> - Identify the difference between Congruency and Similarities of triangles. <br> - Apply Basic Proportionality theorem and its converse. <br> - 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: <br> Based on HCF and LCM. | Competency-skill based activity/ Experiential Learning: Graph Paper <br> - Based on the conditions for consistency of a system of linear equations in two variables by graphical representation. | Competency-skill based activity/ Experiential Learning: <br> Based on Factorisation. | Competency-skill based activity/ Experiential Learning: <br> Based on the Arithmetic Progression and its sums. |
| Art Integration | History, English | English, Science | English, Science | English, Art |
| Assessments | - Periodic Tests <br> - Multiple Assessments <br> - Portfolio <br> - Student Enrichment Activities-practical work <br> Main Book: NCERT |  |  |  |

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## Curriculum

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

| Month | August | September | October | November | December |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Concepts | Ch. 6 <br> Triangles(contd.) Ch. 7 Coordinate Geometry | Ch. 8 Introduction to Trigonometry Ch. 9 Applications of Trigonometry | Ch. 10 Circles <br> Ch. 12 Areas related to Circles | Ch. 13 Surface Area and Volume Ch. 14 Statistics Ch. 15 Probability | - Revision |
| Learning <br> Outcomes | Students will be able to: <br> - Understand the concept of Coordinate geometry. <br> - Find the distance between two points using their coordinates. <br> - Use of section formula. | Students will be able to: <br> - Use Pythagoras theorem in a right angled triangle. <br> - Identify Trigonometry ratios and apply them. <br> - Use different identities to prove the given results. <br> - 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: <br> - Understand the difference between Secant and Tangents to the circle. <br> - Learn that only one tangent can pass through a point lie on the circle. <br> - Observe that tangent to any point of a circle is perpendicular to the radius through the point of contact and apply it. <br> - 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: <br> - Identify the 3-D shapes combined to form an object. <br> - Determine Surface area of combination of different solids. <br> - Make formulas for Volume of a combination of solids. <br> - Convert one solid form to another. <br> - Solve the questions based on mean, median and mode of grouped data. <br> - Find mean by different methods. <br> - Differentiate between experimental and Theoretical Probability. <br> - Differentiate between equally likely and not equally likely outcome. <br> - Understand Sure and impossible event. <br> - Solve the problems based on single events. | Students will be able to <br> - Recapitulate all the concepts. |
| Skills | Knowledge/ <br> Understanding/ Critical <br> Thinking/ Problem Solving | Knowledge/ <br> Understanding/ Critical <br> Thinking /Problem <br> Solving/ Application | Knowledge/ Understanding/ Critical Thinking/ Problem Solving | Knowledge/ <br> Understanding/ Application/ Critical Thinking/ Problem Solving | Knowledge/ <br> Understanding/ Application/ Critical <br> Thinking/ <br> Problem <br> Solving |
| Activities | Competency-skill based activity/ Experiential Learning: Based on Proportionality theorem and Pythagoras theorem. | Competency-skills based activity/ <br> Experiential Learning: <br> Based on Trigonometry. | Competency-skills based activity/ Experiential Learning: Area of sector formed at the vertices of the triangle. | Competency-skills based activity/ <br> Experiential Learning: Based on Surface area and volume of cylinder and cone. | Competencyskill based activity/ Experiential Learning: Based on Probability. |
| Art Integration | English, Art, Physics | English, Art, Physics | English, Art, Physics | English, Art, Physics |  |
| Assessments | - Periodic Tests <br> - Multiple Assessments <br> - Portfolio <br> - Student Enrichment Activities-practical work Main Book: NCERT |  |  |  |  |

