

***Love Dale Central School*****Curriculum 2022-23**

Sub: Maths

Class : X

| Month  | Book  | Chapter/Lesson title              | Topics  | Activity   | Learning Outcome   |
|--------|-------|-----------------------------------|---|--|--|
| MARCH  | NCERT | Polynomials                       | Zeroes of polynomials,relationship between zeroes and coefficeint of quadraic polynomials                                   | case study   | To analyse the geometric meaning of zeroes of a polynomial<br>To derive the reltionship between coefficients and zeroes of a plynomial.  |
| APRIL  | NCERT | Real numbers                      | Fundamental theorem of Arithmetic ,Proof of irrationality   | Teacher writes rational numbers on the board ,students quickly determine if the number is terminating decimal or non terminating but repeating decimals.they will record their | To prove $\sqrt{2}$ , $\sqrt{3}$ as irrational numbers.<br>To represent rational numbers having either a terminating decimal expansion or non terminating repeating decimal expansion. |
| APRIL  | NCERT | Pair of equation in two variables | Graphical Method, Finding Consistency, Algebraic conditions for number of solutions. Finding Solution by elimination method | LAB:To verify the conditions for consistency of a system o linear equations in two variables by graphical representation.  | To represent graph of linear equation to solve word problems.<br>To solve a system of linear equations by method of substitution and elimination.                                      |
| JUNE   | NCERT | Quadratic equations               | Solution by factorisation and quadratic formula, nature of roots  | oral activity: to give examples of quadratic equations with two distinct roots,equal roots and no roots.   | To calculate discriminant ,then find the roots of quadratic equation.<br>To find the nature of roots for quadratic equations   |
| JUNE   | NCERT | Coordinate geometry               | Distance formula, Section formula   | LAB:to find the distance between two points on a graph using distance formula and verifying the result by actual measurement.  | To calculate the distance between two points in a plane .<br>To apply section formula.   |
| JULY   | NCERT | circles                           | Introduction, tangent to a circle, Number of tangents from a point on circle  | To verify that tangents drawn from an external point to a circle are equal.  | To define tangent to a circle and secant line to circle  |
| AUGUST | NCERT | Introduction to Trigonometry      | T-ratios of specific angles, Trigonometric identities   | PROJECT:To find the angle of elevation of the sun  | To understand trigonometric ratios of an acute angle of a right angled triangle.<br>To learn about fundamental trigonometric identities.   |
| AUGUST | NCERT | Some applications of trigonometry | Application of trignometry on finding height and distance   | PROJECT:making of clinometer   | To visualise angle of elevation and angle of depression of an object and use the same to draw figures to find solution   |

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| SEPTEMBER | NCERT | Arithmetic progression    | Introduction and finding nth term of an AP, sum of first n-terms of an AP  | LAB:To find experimentally whether a given sequence is an arithmetic progression or not by using graph sheets and colours.  | To identify first term , common difference ,nth term to calculate the nth term and sum up to n terms                |
| OCTOBER   | NCERT | Area related to circles   | Review on Perimeter and area of circle , areas of sector and segment of a circle , areas of combination of plane figures | To obtain the formula for area of the circle by paper cutting and pasting method  | To identify and apply the terms major/minor sector,major/minor segment and find the area and perimeter of the same. |
| OCTOBER   | NCERT | Probability               | To find probability of an event  | To collect a data related to date of birth of students in their class in different months and find the probability of students who were born in different months. | To define a random experiment and to define probability of an event.  |
| NOVEMBER  | NCERT | Surface areas and volumes | Surface area and volume of combination of solid shapes   | LAB:<br>To find the surface area of any solid figure of student's choice.   | To calculate the surface area and volume of combination of solid figures .  |
| NOVEMBER  | NCERT | Statistics                | Mean, Mode and median of grouped data using 1)Direct method 2)Assumed mean 3)Step deviation                              | LAB:To prepare a frequency table for each letter from a small paragraph of 200-250 words.   | NCERT   |
| DECEMBER  | NCERT | Triangles                 | SIMILAR TRIANGLES,BASIC PROPORTIONALITY THEOREM, AND ITS APPLICATIONS  | LAB:to verify basic proportionality theorem using parallel line board and triangle cut outs.  | To determine the similarity of triangles by AAA,SAS,SS and RHS and to apply basic proportionality theorem           |