

| CHAPTER | CONTENT | ACTIVITIES/ Co-curricular Activities |
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| 1.Square & Square roots | Properties of Square numbers, Square root by repeated subtraction method, prime factorisation, long division method, & estimation method, Square root of a rational numbers. | Model of chess board showing square number. Learning by doing square & square roots |
| 2.Cube & Cube roots | Properties of perfect cube numbers, cube root by prime factorisation & guess method | Model of clock showing time by using cube numbers |
| 3.Exponent & Radicals | Rational numbers as exponents laws of exponents | Laws of exponents by paper folding. Chart of laws |
| 4.Direct & inverse Variation | Problems related to direct & inverse variation | Group activity : Quiz related to variation. |
| 5.Profit ,loss & discount | Problems related to profit&loss, discount, Gst | Group activity on sale purchase. |
| 7.Algebraic Identities | <p>Study of the following identities:</p> $(a + b)^2$ $(a - b)^2$ $(a + b) (a - b)$ $(a + b + c)^2$ $(x + a) (x + b)$ <p>Factorization of algebraic expression based on above Identities.</p> | To verify the identity: $(a+b)^2 = a^2 + 2ab + b^2$ using square pieces & rectangular pieces |
| 10.Parallel lines | Properties of parallel lines, distance between parallel lines, division of line segment into equal parts & in given ratio. | To show the properties of parallel lines. |
| 13. Introduction to graphs | Cartesian plane , plotting a point on Cartesian plane, Construction of graphs | |

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| <p>15. Statistics & Probability</p> | <p>Presentation of data, frequency distribution table , grouping of data, graphical method of representing data, pie chart, probability of an event.</p> | <p>To find the position of any student in the classroom by drawing seating plan</p> <p>To collect the data of income of ten families, make a frequency distribution table & draw histogram</p> <p>To find the probabilities of cards, head & tail by coins</p> |
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| 6.Compound Interest | Compound interest annually, half yearly & quarterly, growth & depreciation. | To find the compound interest annually as well as half yearly of your family income to understand which one is better option |
| 8.Polynomials | Polynomial in one variable, its terms coefficients and degree. Division & verification of a polynomial by a monomial or binomial and also the concept of factors of a polynomial when the remainder is zero. | To create story problem that would be represented using a polynomial, Base & machine activity of division. |
| 9.Linear equation | Equation of the form $ax+b/cx+d = k$ Application of linear equations. | Circle game For this game create a set of index cards with linear equation on one side and the solution to a different equation on other side . Flow charts of properties of quadrilateral, Drawing landscape by polygons. |
| 11.Understanding quadrilateral | Introduction of polygons & its properties. | |
| 12.Construction of quadrilateral | Construct a quadrilateral with given condition : When four sides and one diagonal are given, three sides and both diagonals are given, two adjacent sides and three angles are given, three sides and two included angles are given. | Making a scrap book of objects from our surroundings having different types of quadrilateral. |
| 14.Mensuration | Area of trapezium, general quadrilaterals, area & volume of 3-d shapes, visualizing | Model using 3d object. Mapping of |

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| <p>16. Rotational Symmetry</p> | <p>solid shapes, know about polyhedrons, mapping space around us.</p> <p>Rotational symmetry and its order, centre of rotation, angle of rotation</p> | <p>your surrounding by making route maps. Foldable having formula of whole chapter</p> <p>Make cut outs of alphabets, shapes & find rotational symmetry</p> |
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