



P M English Medium School, Dhinoj

Yearly Plan For Academic Session 2024-2025

Grade: VIII

Subject: MATHEMATICS

Month	No.Of Teaching Days	Assessment	Ch.No/Chap. Name	No. of Sessions	Learning Outcomes
April	21	Arithmetic, Algebra, HOTS	Chapter 1: Rational Numbers. Chapter 2: Linear Equation in two variables.	Chapter 1:12 Chapter 2: 16	<p>Students will be able to:</p> <ul style="list-style-type: none">❖ Identify rational numbers (including fractions, decimals, and integers),❖ Recognize the set of rational numbers (Q).❖ Able to understand and apply the properties of Rational Numbers❖ Commutative property, Closed property, distributive property.❖ Able to find the additive and multiplicative identity of Rational numbers. <p>Chapter 2: Students will be able to understand</p> <ul style="list-style-type: none">❖ Algebraic equation is an equality involving variables where LHS=RHS❖ The highest power of linear equation one variable is 1.❖ Able to solve equations have linear expression on one side and number on the other side.

					<ul style="list-style-type: none"> ❖ Able to solve equations having the variable on both sides. ❖ Able to reduce the equations to the simpler form.
June	16	Geometry, HOTS	Chapter 3: Understanding Quadrilaterals	Chapter 3: 21	<ul style="list-style-type: none"> ❖ Students will be able to understand ❖ The concept of plane curve and plane surface. ❖ Able to identify and classify different types of polygons ❖ Able to construct diagonals of different polygons and classify them in convex and concave polygon. ❖ Regular and irregular polygon ❖ Angle sum property of a triangle and a quadrilateral. ❖ Able to find the angle sum property of any quadrilateral if the sides of the polygon are known ❖ Sum of the measures of the exterior angles of a polygon. ❖ Able to identify different types of quadrilaterals and their properties. ❖ -Square ❖ -Rectangle ❖ -Trapezium ❖ -Kite ❖ -Parallelogram ❖ -Rhombus ❖ Able to apply the properties of

					parallelogram ❖ Able to identify special parallelograms and their properties
July	24	Data Handling, Arithmetic, HOTS	Chapter 4: Data Handling Chapter 5: Squares and Square Roots.	Chapter 4: 11 Chapter 5: 21	Students will be: <ul style="list-style-type: none"> ❖ To recall the concept of Pictograph, Bar Graph and Double bar graph. ❖ Able to form Circle graph / Pie chart ❖ Students will learn about the chance and probability. ❖ Able to understand equally likely outcomes, linking chances to the probability and taking outcomes as an event to find the probability of the event. ❖ Able to apply concepts to find the probability related with real life situations. Chapter 5 Students will be: <ul style="list-style-type: none"> ❖ Able to identify the square numbers. ❖ Understand the properties of square numbers ❖ Learn interesting patterns of square numbers. ❖ Will understand the concept of

					<p>Pythagorean triplets.</p> <ul style="list-style-type: none"> ❖ Able to find out square root of given numbers by using repeated subtraction and prime factorisation and by division method. ❖ Able to identify the given number is perfect square or not. ❖ Able to find the square root of decimal
August	19	Arithmetic, HOTS	Chapter 6: Cubes and Cube Roots. Chapter 7: Comparing Quantities.	Chapter 6: 6 Chapter 7:19	<p>Students will be:</p> <ul style="list-style-type: none"> ❖ Able to identify cube numbers. ❖ Able to understand the properties related to cube numbers. ❖ Able to identify the given number is perfect cube or not. ❖ Able to find out the cube root of the number by prime factorisation. <p>Chapter 7</p> <ul style="list-style-type: none"> ❖ Students will be able to compare the quantities (using ratio and percentage) and will be able to solve the question based on the daily life situation. ❖ They will be able to understand the concept and formula for calculating <ul style="list-style-type: none"> ○ 1) Value added tax/Goods and services tax ○ 2) Discount, Discount %, Market price and Selling

					<ul style="list-style-type: none"> Price. <ul style="list-style-type: none"> ○ 2) Compound Interest (Yearly) and will be able to do the questions based on the same. ❖ They will be able to do the questions on calculating amount and compound interest. ❖ They will also be do questions based on the application of compound interest.
September	10	Term 1-Exam Chapters: 1,2,3,4,5,6,7	<p style="text-align: center;">REVISION</p> <p>Extra Topic: Congruence of Triangles</p>	<p style="text-align: center;">REVISION TERM 1</p> <p style="text-align: center;">Sessions:08</p>	
October	18	Algebra, HOTS	<p>Chapter 8: Algebraic Expressions and Identities</p> <p>Chapter 12: Factorisation.</p>	<p>Chapter 8: 13</p> <p>Chapter 12:11</p>	<ul style="list-style-type: none"> ❖ Students will be able to find the sum of algebraic expressions and the difference between the algebraic expressions. ❖ They will be able to find the product of two monomials, product of a monomial and a binomial, product of a monomial and a polynomial, product of two binomials, product of a binomial and trinomial and product of two trinomials.

					<ul style="list-style-type: none"> ❖ They will be able to simplify the given expression by using algebraic identities and will be able to verify the given expressions. <p>Chapter 12</p> <ul style="list-style-type: none"> ❖ Students will be able to understand the factorisation of an expression that expresses each term as a product of irreducible factors. ❖ They will be able to understand different methods of factorising an expression like the method of common factors, regrouping the terms, using the identities and will be able to solve the questions based on all the three methods. ❖ They will learn to divide an expression by another expression.
November	17	Algebra, Arithmetic, HOTS	Chapter 12: Factorisation. (Continue) Chapter 10: Exponents and Powers.	Chapter 12: 04 Chapter 10: 19	<p>Chapter 10</p> <ul style="list-style-type: none"> ❖ Students will be able to understand all laws of exponent and how to apply these laws in solving the sums. ❖ They will understand about negative exponents and the law based on the same and will be able to use the law in solving the sums. ❖ They will learn to simplify the given

					<p>expression or to express it in exponential notation.</p> <ul style="list-style-type: none"> ❖ Students will be able to represent a very large number or very small number in standard form or vice-versa. ❖ They will be able to convert the given statement into standard form.
December	10	Arithmetic, HOTS	Chapter 11: Direct and Inverse Proportion Chapter 9: Mensuration	Chapter 11:09 Chapter 9: 04	<ul style="list-style-type: none"> ❖ Students will be able to observe the relationship between the given two quantities in order to solve for the constant of proportionality. ❖ They will be able to decide whether two quantities are proportional to each other or not. ❖ They will be able to solve the problems based on direct or inverse proportions in order to establish how one quantity depends on the other. <p>Chapter 9:</p> <p>Students will be able to find</p> <ul style="list-style-type: none"> ❖ Area of: Parallelogram, Trapezium, General Quadrilateral, Rhombus. ❖ Able to understand the concept and learn the formula of total surface area and lateral surface area of cube, cuboid, cylinder and will be able to

					<p>use the formula to solve the sums.</p> <ul style="list-style-type: none"> ❖ They will be able to understand the concept of Volume and learn the formula of volume of cube, cuboid, cylinder and will be able to use the formula to solve the sums.
Jan-24	22	Mensuration, Data Handling, HOTS	Chapter 9: Mensuration (Continue.) Chapter 13: Introduction to Graphs.	Chapter 9:22 Chapter 13: 7	<p>Chapter 13 Students will be:</p> <ul style="list-style-type: none"> ❖ Able to draw a line graph to represent the given data that changes continuously over periods of time. ❖ Interpret the given line graph and answer the questions based on that. ❖ Plot the given points on the graph to verify if they lie on the same line or not. ❖ Choose an appropriate scale to plot a graph of the given data. ❖ Differentiate line graph and linear graph. ❖ Construct a linear graph to show the relationship between independent and dependent variables of a given mathematical situation.

Feb-25	18	-	REVISION	REVISION	-
March-25	0	Term2-Exam Chapters– 8,9,10,11,12,13	TERM 2 EXAM	TERM 2 EXAM	-
Total	175				