

P M English Medium School, Dhinoj
Annual Syllabus Break Up 2024-25
Grade 10
Subject: - Mathematics (041)

Month	Topics	Learning Outcome
April (22)	<p>Chapter-1 Real Numbers</p> <p>Chapter-2 Polynomials</p> <p>Chapter- 13 Statistics</p>	<ul style="list-style-type: none"> ● The students will be able to define and exemplify real numbers. ● The students will be able to differentiate between rational and irrational numbers. ● The students will be able to apply the denseness property of rational numbers and find out n rational numbers between the given numbers. ● The students will be able to prove the irrationality of an irrational number by proof by contradictions method. ● The students will be able to find the HCF and LCM by using fundamental theorem of arithmetic. ● The students will be able to define the polynomials and give distinction between different type of polynomials ● The students will be able to find the zeroes of quadratic polynomials. ● The students will be able to establish the relations between zeroes and coefficients. ● The students will be able to find the mean with the help of all methods i.e. Direct method, Assumed Mean Method. ● The students will be able to find the unknown frequency of the distribution when the mean is given. ● The students will be able to calculate the mode of the given distribution. ● The students will be able to find the median of the given distribution. ● The students will be able to find the missing frequency of the given distribution when the median is given.

	Chapter- 14 Probability	<ul style="list-style-type: none"> ● Students will be able to define the term related to probability ● Students will be able to find the probability based on dice, playing cards and coins ● Students will be able to find probability of daily life problems
<p>June (16) I Quarterly Exam Ch. 1,2,6,13,14,</p>	<p>Chapter-6 Triangles</p> <p>Revision for Quarterly Exam - 1</p>	<ul style="list-style-type: none"> ● Students will be able to define the concept of similarity of triangles with definitions. ● The students will be able to understand the similarity criteria AAA, SSS , SAS ● Students will be able to identify the similar triangles based on the similarity criterion. ● Students will be able to prove different result based on similarity of triangles. ● The students will be able to prove different theorems based on similarity of triangles. ● The students will be able to solve different problems.
<p>July (23)</p>	<p>Chapter-3 A Pair of linear Equations in two variables</p> <p>Chapter-4 Quadratic Equations (12)</p>	<ul style="list-style-type: none"> ● Students will be able to understand a pair of linear equations in two variables ● Students will be able to solve equations by substitution method, elimination method, graphical method. ● The students will be able to solve the word problems after framing the equations. ● Students will be able to solve the problems based on conditions of solvability of a pair of equations in two variables ● Students will be able to identify a quadratic equation by applying its standard form structure and identify the coefficients. ● Students will be able to find the roots of a quadratic equation by factorisation method or by using identity method, Quadratic equations. ● Student Will be able to identify the type of roots obtained in a quadratic equation. <ul style="list-style-type: none"> ● The students will be able to find the n th term of the arithmetic

	<p>Chapter-9 Some Applications of Trigonometry</p> <p>Revision for Term – 1 Exam</p>	<p>trigonometric identities.</p> <ul style="list-style-type: none">• The students will be able to prove identities with the help of the given expression.• The students will be able to differentiate between the angles of depression and the angle of elevation.• The students will be able to solve the problems based on these two concepts.
<p>September (10)</p> <p>Term – 1 Exam Ch. 1,2,3,4,5,6,7,8,13,14,</p>	<p>Chapter-10 Circles</p> <p>Chapter-11 Areas Related To Circle</p>	<p>Students will be able:</p> <ul style="list-style-type: none">• To identify the chord, secant and tangent of a circle.• Able to find the length of the tangent of a circle.• Able to prove that the length of the tangent of a circle drawn from same external point are equal in length.• Able to prove that the tangents drawn at the end point of the diameter are parallel to each other.• Able to calculate the radius of a circle.• Able to prove the sums from the exercise by using the concepts of the chapter. <p>able to verify that the tangent is always perpendicular to the radius of the circle</p> <p>The Students will be able to</p> <ul style="list-style-type: none">• Find the area of a circle.• Calculate the area of sector and segment, The students will be able to solve the sums based on sector and segment of the circle and word problems based on them.• The students will be able to solve the problems based on the area of shaded regions.
	<p>Chapter-11 Areas Related To Circles Cont.....</p>	<ul style="list-style-type: none">• The students will be able to solve the problems based on figures and perimeter and areas.• The students will be able to solve problems of everyday life based on area of circle and segment with sectors. <p>Students will be able to</p> <ul style="list-style-type: none">• Determine the surface area of an object formed by combination of solids.

<p>October (18)</p>	<p>Chapter-12 Surface Areas and (15) Volumes.</p>	<ul style="list-style-type: none"> ● Find the volume of objects by combining two solids. ● Understand the concept and formula of total surface area, curved surface area and volume of solids like cylinder, cone double cone. ● The students will be able to compare the surface area and volumes of two different three dimensional solids. ● The students will be able to solve the problems based on volumes of speed distance time related concepts. ● The students will be able to solve the word problems based on these solids.
<p>November (17)</p>	<p>Revision for Board Exam</p>	
<p>December (12)</p>	<p>Revision for Board Exam</p>	
<p>January (21)</p>	<p>Revision for Board Exam</p>	
<p>February</p>	<p>Revision for Board Exam</p>	