

**BAGARIA BAL VIDYA NIKETAN**  
**LACHHMANGARH-SIKAR**  
**SYLLABUS & LESSON PLANNER 2022-23**

<b>CLASS</b>	<b>X</b>
<b>SUBJECT</b>	<b>Mathematics</b>
<b>TEACHER'S NAME</b>	<b>Praveen Saini</b>

**SYLLABUS**

CH. NO.	NAME OF CHAPTER	WORKING DAY	PERIOD	TOPIC	MONTH	WEEK
Unit No: II	Algebra:- Polynomials, Pair of Linear Equations in two variables	21	27	Zeros of a polynomial. Relationship between zeros and coefficients of quadratic polynomials	April	1
				Pair of linear equations in two variables and graphical method of their solution, consistency/inconsistency. Algebraic conditions for number of solutions. Solution of a pair of linear equations in two variables algebraically - by substitution, by elimination. Simple situational problems		2 & 3
Unit: II	Algebra:- Quadratic Equation & Arithmetic Progressions	17	27	Standard form of a quadratic equation $ax^2 + bx + c = 0$ , ( $a \neq 0$ ). Solutions of quadratic equations (only real roots) by factorization, and by using quadratic formula. Relationship between	May	1
				Situational problems based on quadratic equations related to day to day activities to be		2
				Motivation for studying Arithmetic Progression Derivation of the nth term and sum of the first n terms of A.P. and their application in solving daily life problems		
Unit : III	Coordinate Geometry	9	9	of linear equations. Distance formula. Section formula (internal division)	June	1
Revision for the Test consisting the syllabus completed till now					July	1
						2

Unit : V	Trigonometry	23	36	INTRODUCTION TO TRIGONOMETRY Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their existence (well defined); motivate the ratios whichever are defined at 0o and 90o. Values of the trigonometric ratios of 300 , 450 and 600 . Relationships	August	1 & 2
				Proof and applications of the identity $\sin 2A + \cos 2A = 1$ . Only simple identities to be given Simple problems on heights and distances. Problems should not involve more than two right triangles. Angles of elevation / depression should be only 30°, 45°, and 60°.		3 & 4
Unit: VI	Mensuration: Areas related to circles, Surface areas and volumes	25	36	Area of sectors and segments of a circle. Problems based on areas and perimeter / circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of 60°, 90° and 120° only.	September	1
				Surface areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders/cones.		2
						3
						4
Syllabus break due to holidays and exam period in the month of October.						
Unit: VII	Statistics and Probability	25	36	Mean, median and mode of grouped data (bimodal situation to be avoided).	Novemebr	1 & 2
				Classical definition of probability. Simple problems on finding the probability of an event.		3 & 4
Unit: I & IV	Real Numbers & Geometry	21	27	Fundamental Theorem of Arithmetic - statements after reviewing work done earlier and after illustrating and motivating through examples,	December	1
				(Prove) If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio		2

	Geometry			(Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact. (Prove) The lengths of tangents drawn from an external point to a circle are equal.		3
	Revision				January	1
	Revision				February	1