

N. C. JINDAL PUBLIC SCHOOL PUNJABI BAGH, NEW DELHI ANNUAL CURRICULUM

Class : IX	Subject : Mathematics	Subject Teacher (Prepared by): Vidyotma Dhand		Designation: TGT(Maths)		
Preferred Text Book / Material	Chapter's Name	Chapter Topic / Sub Topic	Term	Start Date	End Date	No.of Periods
	Number System	Review of representation of natural numbers, integers, and rational numbers on the number line. Rational numbers as recurring/ terminating decimals. Operations on real numbers.	1	01-04-2025	05-04-2025	7
		Examples of non-recurring/non-terminating decimals. Existence of non-rational numbers (irrational numbers) such as $\sqrt{2}, \sqrt{3}$ and their representation on the number line. Explaining that every real number is represented by a unique point on the number line and conversely, viz. every point on the number line represents a unique real number.		07/04/2025	11/4/24	5
		Definition of nth root of a real number. Rationalization (with precise meaning) of real numbers of the type $1/(a+b\sqrt{x})$ and $1/(\sqrt{x}+\sqrt{y})$ (and their combinations) where x and y are natural numbers and a and b are integers.		14-04-2025	19-04-2025	7
		Recall of laws of exponents with integral powers. Rational exponents with positive real bases (to be done by particular cases, allowing learner to arrive at the general laws.)		21-04-2025	25-04-2025	7
	Co-ordinate geometry	The Cartesian plane, coordinates of a point,	1	28-04-2025	03-05-2025	8``
		names and terms associated with the coordinate plane, notations.		05-05-2025	09-05-2025	7
	linear equations in two	Recall of linear equations in one variable.		13-05-2025	16-05-2025	5
		Introduction to the equation in two variables. Focus on linear equations of the type $ax + by + c = 0$.		01-07-2025	5-7-2025	7

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variables	.Explain that a linear equation in two variables has infinitely many solutions and justify their being written as ordered pairs of real numbers, plotting them and showing that they lie on a line.	1	7-7-2025	11-7-2025	7
Heron's Formula	Area of a triangle using Heron's formula (without proof)	1	14-7-2025	19-7-2025	8
Introduction to Euclid's geometry	History - Geometry in India and Euclid's geometry. Euclid's method of formalizing observed phenomenon into rigorous Mathematics with definitions, common/obvious notions, axioms/postulates and theorems. The five postulates of Euclid. Showing the relationship between axiom and theorem, for example: (Axiom) 1. Given two distinct points, there exists one and only one line through them. (Theorem) 2. (Prove) Two distinct lines cannot have more than one point in common.	1	21-7-2025	25-7-2025	7
Statistics	Bar graphs, histograms (with varying base lengths),	1	28-7-2025	2-8-2025	8
	frequency polygons.		4-8-2025	8-8-2025	7
lines and angles	(Motivate) If a ray stands on a line, then the sum of the two adjacent angles so formed is 180° and the converse.	1	11-8-2025	14-8-2025	5
	(Prove) If two lines intersect, vertically opposite angles are equal.		18-8-2025	22-8-2025	7
	(Motivate) Lines which are parallel to a given line are parallel.		25-8-2025	29-8-2025	7
Revision		1	1-9-2025	11-9-2025	12
Half Yearly/ Mid Term Exam		1	15-9-2025	26-9-2025	11
polynomials	Definition of a polynomial in one variable, with examples and counter examples. Coefficients of a polynomial, terms of a polynomial and zero polynomial. Degree of a polynomial. Constant, linear, quadratic and cubic polynomials.	2	29-9-2025	9-10-2025	5
	Monomials, binomials, trinomials. Factors and multiples. Zeros of a polynomial. Motivate and State the Remainder Theorem with examples. Statement and proof of the Factor Theorem. Factorization of $ax^2 + bx + c$, $a \neq 0$ where a , b and c are real numbers, and of cubic polynomials using the Factor Theorem.		13-10-2025	17-10-2025	

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	<p>Recall of algebraic expressions and identities. Verification of identities:</p> $(x + y + z)^2 = x^2 + y^2 + z^2 + 2xy + 2yz + 2zx$ $(x \pm y)^3 = x^3 \pm y^3 \pm 3xy(x \pm y)$ $x^3 \pm y^3 = (x \pm y)(x^2 \mp xy + y^2)$ $x^3 + y^3 + z^3 - 3xyz = (x + y + z)(x^2 + y^2 + z^2 - xy - yz - zx)$ <p>and their use in factorization of polynomials.</p>		24-10-25	31-10-25	7
triangles	<p>(Motivate) Two triangles are congruent if any two sides and the included angle of one triangle is equal to any two sides and the included angle of the other triangle (SAS Congruence). (Prove) Two triangles are congruent if any two angles and the included side of one triangle is equal to any two angles and the included side of the other triangle (ASA Congruence).</p> <p>(Motivate) Two triangles are congruent if the three sides of one triangle are equal to three sides of the other triangle (SSS Congruence). (Motivate) Two right triangles are congruent if the hypotenuse and a side of one triangle are equal (respectively) to the hypotenuse and a side of the other triangle. (RHS Congruence)</p>	2	1-11-25	7-11-25	4
			10-11-25	15-11-25	8
	<p>(Prove) The angles opposite to equal sides of a triangle are equal. (Motivate) The sides opposite to equal angles of a triangle are equal.</p>		17-11-25	21-11-25	7
	<p>(Prove) The diagonal divides a parallelogram into two congruent triangles. (Motivate) In a parallelogram opposite sides are equal, and conversely. (Motivate) In a parallelogram opposite angles are equal, and conversely.</p>		24-11-25	29-11-25	7

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	quadrilaterals	(Motivate) A quadrilateral is a parallelogram if a pair of its opposite sides is parallel and equal. (Motivate) In a parallelogram, the diagonals bisect each other and conversely (Motivate) In a triangle, the line segment joining the mid points of any two sides is parallel to the third side and in half of it and (motivate) its converse.	2	1-12-25	6-12-25	7
	circles	(Prove) Equal chords of a circle subtend equal angles at the center and (motivate) its converse (Motivate) The perpendicular from the center of a circle to a chord bisects the chord and conversely, the line drawn through the center of a circle to bisect a chord is perpendicular to the chord. .	2	8-12-25	12/12/2025	7
		(Motivate) Equal chords of a circle (or of congruent circles) are equidistant from the center (or their respective centers) and conversely. (Prove) The angle subtended by an arc at the center is double the angle subtended by it at any point on the remaining part of the circle.		15-12-25	20-12-25	7
		(Motivate) Angles in the same segment of a circle are equal. (Motivate) If a line segment joining two points subtends equal angle at two other points lying on the same side of the line containing the segment, the four points lie on a circle. (Motivate) The sum of either of the pair of the opposite angles of a cyclic quadrilateral is 180° and its converse.		22-12-25	31-12-25	8
	surface areas and volumes	Surface areas and volumes of spheres (including hemispheres)	2	16-1-26	23-1-26	8
		right circular cone		27-1-26	7-2-26	11
	Revision		2	9-2-26	13-2-26	5
				16-2-26	20-2-26	6
	Annual Exam		2	21-2-26	7-3-26	12

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Subject Co-ordinator : Name Mr. K.K.Jha Sign _____

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MARKING SCHEME OF CLASS IX, TCHR: VD

S.NO.	PERIODIC EXAMINATIONS	CHAPTER/TOPIC	MAXIMUM MARKS
	PERIODIC TEST 1	NUMBER SYSTEM	20
		TOTAL	20
	HALF YEARLY EXAM/MIDTERM EX	NUMBER SYSTEM	18
		LINES AND ANGLES	20
		HERONS FORMULA	8
		EUCLIDS GEOMETRY	5
		COORDINATE GEOMETRY	8
		LINEAR EQUATIONS	12
		STATISTICS	9
		TOTAL	80
		COORDINATE GEOMETRY	6
	PERIODIC TEST 2	LINEAR EQUATIONS	7
		HERONS FORMULA	7
		TOTAL	20
	PERIODIC TEST 3	POLYNOMIAL	20
		TOTAL	20

Co-ordinator Name : _____ Sign _____

Subject Teacher :

Name : _____ Sign _____

Name : _____ Sign _____

Name : _____ Sign _____

Name : _____ Sign _____

Name : _____ Sign _____

Name : _____ Sign _____

Class 9 th Annual Exam Syllabus				
Mathematics				
Serial No.	Unit	Chapter No		Marks
1	Number System	1.Number system	10	10
2	Algebra	2. Polynomial 4.L.Eq.in two variable	20	20
3	Co-ordinate Geometry	3.Co.ordinate	4	4
4	Geometry	5.Euclid geometry 6.Lines and angles 7.Triangles 8.Quadrilaterals 9.Circles		27
5	Mensuration	10. Heron's formula 11. surface area & volume	13	13
6	Statistics	12.statistics	6	6

Total=80