

Subject : MATHEMATICS
 Grade : X
 Year : 2018-19

YEAR PLANNER

Text book used: NCERT Mathematics text book

MONTH& NO. OF WORKING DAYS	UNIT	SUB- UNITS	OBJECTIVES	ACTIVITIES PLANNED	ASSESSMENT / RECAP
March/April (19)	Statistics	Mean, Median, Mode, Cumulative Graphs	Students acquire knowledge of calculating central tendency of data using Mean, Median, Mode	1) Graphical representation of Ogive. 2) Finding median using Ogive.	Worksheet-1
June (20)	Trigonometry	Trigonometric Ratios & Identities	Students acquire knowledge of Trigonometric ratios, values of standard angles, complementary angles and Identities.	Finding Trigonometric angles using different triangles	Worksheet-2 Slip test-1
	Application of Trigonometry	Heights & Distances	Students apply knowledge of standard values of trigonometric ratios and solve problems of Heights & Distances.	Students make clinometer & demonstrate calculation of heights of objects around them.	Worksheet-3
	Real Numbers	Euclid's Division Lemma Fundamental Theory	Students understand Euclid's Lemma in finding HCF and LCM	Activity on finding HCF	Slip test-2
July (24)	Polynomials	Zeroes of Polynomial and Division Algorithm	Irrational numbers, relation between zeroes and coefficients of Quadratic and cubic polynomials.	Solving simultaneous linear equations.	
	Pair of Linear Equations of 2 variables	Linear Equations in 2 variables, Solving equations by algebraic methods.	Students learn procedures of solving pair of simultaneous linear equations graphically.		Worksheets-4,5 Slip test-3
		Graphical Method	Students learn solving simultaneous linear equations algebraically.		Revision Worksheet-1
	Triangles	Similar figures Similarity of Triangles	Students gain knowledge and understanding of the	Activity on proving Pythagoras Theorem	PT-1

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			criteria for similarity of triangles.		
August	Triangles(contd..)	Areas, Pythagoras Theorem	Students learn theorems and their proofs.		
	Arithmetic Progressions	A.P., general term or n^{th} Term, Sum of n terms - S_n	Students learn to find sum of n-terms of an A.P and apply the knowledge of A.P. in daily life	Finding 'nth' term of an A.P. experimentally, math lab activity on finding S_n .	Slip test-4
	Coordinate Geometry	Distance formula, section formula and Area of triangle formula.	Students learn to find distance between 2 points, ratio in which a line joining two points is divided and to calculate Area of a Triangle	Activity on finding distance between 2 points using graph sheet	Revision Worksheet-2
September (06)	Revision	-----	-----	-----	Half Yearly exam/ (PT-2)
October (14)	Quadratic Equations	Solving Quadratic Equations by the methods of factorization, completing the square and quadratic formula.	Solving problems and analyzing real life applications.	Students play Tic-Tac-Toe and find factors of a Quadratic Equation	Worksheets 8,9 Slip test-5
	Areas related to Circles	Perimeter & area of circle, area of sectors, segments.	Students gain knowledge of finding areas of combination figures.	Math lab activity on showing area of sector is equal to CSA of cone.	
	Surface Areas & Volumes	Surface Area and volume of Solids and combination of solids.	Students gain knowledge of finding areas of combination of solids.	A model is prepared with combination of 2/3 solids. Math lab activities on surface areas and volumes.Measuring the frustum of a cone	
November (19)	Circles	Tangents Number of Tangents to a circle.	Properties of circles and theorems	Math lab activities on angles in same segment of circle, central angle theorem and measurement of lengths of tangents.	Worksheets 10,11 Slip test-6

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	Constructions	Division of Line Segment, Construction of triangles similar to given triangle Construction of Tangents to a circle.	Students construct tangents and similar triangles and divide line segments in given ratio.	Construction of Tangents to Circle	Revision Worksheet-3 PT -3
December (22)	Probability	Theoretical Approach	Students learn importance of probability in daily life	A game is played using die or coin in order to find the outcomes & drawing conclusions	Worksheets 12, 13 Revision Worksheet-4
January (19)	Revision and Pre Boards Examination				
February (22)					