



JAYPEE PUBLIC SCHOOL
WEEK WISE SYLLABUS
SESSION-(2022-23)
TERM-1& 2
(MATHEMATICS)
CLASS X

MONTH: MARCH

Content / Topic	1 st week	2 nd week	3 rd week	4 th week
Chapter 1 : Real Numbers				Chapter 1 : <ul style="list-style-type: none"> • Euclid’s algorithm & its application. • Fundamental theorem of Arithmetic • H.C.F and L.C.M of two or more numbers. • Revisiting Irrational numbers.& their decimal expansions
Learning Objectives	<ul style="list-style-type: none"> • To understand and apply the H.C.F. & L.C.M. Algorithm/lemma in real life situation. 			
Expected Learning Outcomes	The students will be able to <ul style="list-style-type: none"> • calculate HCF. & LCM. Using Euclid algorithm/lemma and prime factorization. • find decimal representation of rational and irrational numbers. • use contradiction method for proving a statement. • to be able to solve problems on division algorithm. 			
Teaching Aid/Resource	<ul style="list-style-type: none"> • Smart class module 			

MONTH: APRIL

Content / Topic	1 st week	2 nd week	3 rd week	4 th week
Chapter 2: Polynomials Chapter 3 :Pair of Linear Equations In Two Variables	Chapter 2 : <ul style="list-style-type: none"> • Introduction to polynomials 	<ul style="list-style-type: none"> • Relationship between zeroes & coefficients of a polynomial Division algorithm for polynomials <ul style="list-style-type: none"> • two variables & word problems 	Chapter 3 : <ul style="list-style-type: none"> • Equations in two variables & word problems (Contd...) 	Chapter 3 : <ul style="list-style-type: none"> • Graphical method of solution of a pair of linear equations. • Algebraic method of solution of a pair of linear equations • Substitution method and word problems Elimination Method and word
Learning Objectives	<ul style="list-style-type: none"> • To find the zeroes of a given polynomial graphically and algebraically • To understand the relationship between zeroes and coefficients of a polynomial. • To represent linear equations in two variables graphically and algebraically. • To apply the knowledge of linear equations in problem solving in real life problems. 			
Expected Learning Outcomes	The student will be able to <ul style="list-style-type: none"> • establish the relationship between the zeros of a polynomial and its co-efficient. • solve the pair of linear equations by different methods. • apply the concept of solving linear equations to solve word problems. 			

Teaching Aid/Resource	<ul style="list-style-type: none"> Smart class module
Lab Activity	<ul style="list-style-type: none"> To obtain the condition for consistency of a system of linear equations in two variables by graphical method.

MONTH: MAY

Content / Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter 8 : Introduction To Trigonometry Chapter 6 : Triangles	Chapter 3: <ul style="list-style-type: none"> Cross Multiplication Method and word problems Equations reducible to a pair of linear equations in two variables .	Chapter 8 : <ul style="list-style-type: none"> Trigonometric ratios. Trigonometric ratios of specific angles. Trigonometric ratios of complementary angles. 	Chapter 8 <ul style="list-style-type: none"> Trigonometry identities. 	Chapter 6 : <ul style="list-style-type: none"> Thales Theorem. Similarity of plane figures Criteria of similarity of triangles. Areas of similar triangles.
Learning Objectives	<ul style="list-style-type: none"> To acquaint the students with the concept of Trigonometric ratios & its Identities. Use the concept of trigonometric ratios & its identities to solve given problems To develop the ability of comparison of similar, congruent triangles & its area 			
Expected Learning Outcomes	The student will be able to: <ul style="list-style-type: none"> Apply the concept of Trigonometric ratios and its identities Recall similar figures and identify them. recognize various rules to show two triangles similar 			
Teaching Aid/Resource	<ul style="list-style-type: none"> Smart class module 			
Lab Activity	<ul style="list-style-type: none"> To verify the identity $\sin^2 + \cos^2 \theta = 1$, through an activity. To Verify Basic proportionality theorem by the method of paper cutting and pasting. 			

MONTH: JULY

Content / Topic	1st week	2nd week	3rd week	4th week	5th week
Chapter 6 : Triangles Chapter 15: Probability	Chapter 6: <ul style="list-style-type: none"> Proof of Pythagoras Theorem, its converse and problems based on these. 	Chapter 15: Probability	<ul style="list-style-type: none"> To enable the students to understand the concept of theoretical probability of different events 	The student will be able to <ul style="list-style-type: none"> Understand the concept of theoretical probability of different events. 	Chapter 15 : Probability Chapter 15 (contd): Problems based on probability
Learning Objectives	<ul style="list-style-type: none"> To understand Pythagoras theorem and its converse. 				
Expected Learning Outcomes	The student will be able to <ul style="list-style-type: none"> use Pythagoras theorem and its converse in different situations find solutions of right triangle and use it to solve practical problems based on it. 				
Teaching Aid/Resource	<ul style="list-style-type: none"> Smart class module Teaching Aid on Pythagoras theorem. 				

Lab Activity	To verify Pythagoras theorem by the method of paper cutting and pasting.
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MONTH: AUGUST

Content / Topic	1 st week	2 nd week	3 rd week	4 th week	5 th Week
Chapter 7: Co- Ordinate Geometry Chapter 12: Areas Related To Circles	Chapter 7 • Distance Formula and related problems	Chapter 7 • Section formula • Midpoint formula and related problems • Area of Triangle.	Chapter 12 • Perimeter & Area of a circle - A review • Area of sector & segment of a circle	Chapter 12 • Areas of combination of plane figures	revision
Learning Objectives	<ul style="list-style-type: none"> To familiarize the students with coordinate plane & finding distance between two points. To develop the motor skills of the students using the concept of circle. To apply the concept of area & perimeter of plane figures in day to day life. 				
	<ul style="list-style-type: none"> To familiarize the students with section formula and its application in finding coordinate of point of division or ratio. 				
Expected Learning Outcomes	The student will be able to <ul style="list-style-type: none"> familiarize themselves with the co-ordinate plane find the distance between two points. use concept of distance formula, section formula in day to day life situations. use the concept of area & perimeter of plane figures in given problems. 				
Teaching Aid/ Resource	<ul style="list-style-type: none"> Smart class module $\frac{n(n+1)}{2}$				
Lab Activity	To reinforce the concept of probability through an activity.				

MONTH: SEPTEMBER

Content / Topic	1 st week	2 nd week	3 rd week	4 th week
REVISION	Revision	Revision + Term-1 Exam	Term-1 Exam	Term-1 Exam + Paper Discussion
Assessment	Term-1 Exam			

OCTOBER:

Content / Topic	1 st week	2 nd week	3 rd week	4 th week	5 th week
Chapter 4: Quadratic Equations Chapter 5 : Arithmetic Progression	Chapter 4 • Introduction to Quadratic Equation.	Chapter 4 Its solution by factorization Method of completing the square	Chapter 4(contd) • Quadratic formula • Nature of Roots	Chapter 4 • Word Problems Chapter 5 : • Introduction to A.P.	Chapter 5 (contd): • n th term of an A.P. • Its application in solving word problem.

Learning Objectives	<ul style="list-style-type: none"> To understand Pythagoras theorem and its converse. To solve the quadratic equation by different methods & its applications. To enable the students to understand the concept of Arithmetic Progression & its application in everyday experiences.
Expected Learning Outcomes	<p>The student will be able to</p> <ul style="list-style-type: none"> use Pythagoras theorem and its converse in different situations find solutions of right triangle and use it to solve practical problems based on it. solve the quadratic equations by different methods and to apply its concept in solving word problems Understand the concept of sequence/patterns and A.P. as a special sequence. Use the concept nth term of an A.P. in solving problems.
Teaching Aid/ Resource	<ul style="list-style-type: none"> Smart class module <p>Teaching Aid on Pythagoras theorem.</p>
Lab Activity	<p>To verify Pythagoras theorem by the method of paper cutting and pasting.</p> <ul style="list-style-type: none"> Factorization of Quadratic equations by the method of completing square using paper cutting method. To verify that the given sequence is an A.P by paper cutting and pasting activity.

MONTH: NOVEMBER

Content / Topic	1st week	2nd week	3rd week	4th week
Chapter 5: Arithmetic Progreessions. Chapter 9: Some Application of Trigonometry	Chaper 5 (contd.) <ul style="list-style-type: none"> Sum of first n terms of an A.P 	Chaper 5 (contd.) <ul style="list-style-type: none"> Word Problems of A.P. 	Chapter 9 <ul style="list-style-type: none"> Angle of Depression & Angle of Elevation 	Chapter 9 Related Problems on Height & distances
Learning Objectives	<ul style="list-style-type: none"> Use the concept of sum of nth term of an A.P. in solving problems. To apply the concept of trigonometry in finding heights & distances in day to day life 			
	<ul style="list-style-type: none"> To familiarize the students with coordinate plane & finding distance between two points. To familiarize the students with section formula and its application in finding coordinate of point of division or ratio. 			
Expected Learning Outcomes	<p>The student will be able to</p> <ul style="list-style-type: none"> use the concept of trigonometry in finding the height & distance familiarize themselves with the co-ordinate plane find the distance between two points. use concept of distance formula, section formula in day to day life situations. 			
Teaching Aid/ Resource	<ul style="list-style-type: none"> Smart class module 			
Lab Activity	<ul style="list-style-type: none"> To verify that the sum of first 'n' natural numbers is given by $\frac{n(n+1)}{2}$ by graphical method. To make clinometer for measuring angle of elevation/depression of an object. 			

MONTH: NOVEMBER

Content / Topic	1st week	2nd week	3rd week	4th week
REVISION	Revision	Revision + PT II Exam	PT II Exam	PT II Exam+ Paper Discussion

Assessment	PT II Exam
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MONTH: DECEMBER

Content / Topic	1 st week	2 nd week	3 rd week	4 th week	5 th Week
Chapter 10: Circles Chapter 11: Constructions Chapter 13: Surface Areas and Volumes	Chapter 10 <ul style="list-style-type: none"> Theorems on tangent to a circle and related problems. Chapter 11 <ul style="list-style-type: none"> Division of a Line segment 	Chapter 11 (contd.) <ul style="list-style-type: none"> Construction of similar triangles. Construction of a pair of tangents from an ext. pt. to a circle 	Chapter 13 <ul style="list-style-type: none"> Volume & Surface Area of a 3-D fig.- A review 	Chapter 13 <ul style="list-style-type: none"> Surface Areas & Volumes of Areas of combination of plane figures Chapter 13 <ul style="list-style-type: none"> Surface Areas & Volumes of combination of solids. 	Chapter:13 <ul style="list-style-type: none"> Conversion of one solid into the other
Learning Objectives	<ul style="list-style-type: none"> To develop the motor skills of the students using the concept of circle. Divide a line segment and construct similar triangles Construct a pair of tangents from an external point to a circle To apply the concept of area & perimeter of plane figures in day to day life. To recall and apply the formulas of Surface area/Volume of 3D shapes in every -day life situations. To find the surface area & volume of combination of solid figures 				
Expected Learning Outcomes	The student will be able to <ul style="list-style-type: none"> use concept of tangent to circles in solving given problems. use the concept of area & perimeter of plane figures in given problems. solve problems related to combination of plane figures. find the surface area & volume of combination of solid figures. understand the concept of conversion of solids from one form to other. 				
Teaching Aid/Resource	<ul style="list-style-type: none"> Models of Cube , Cuboids , Sphere , Cone , Cylinder Smart Class Module 				
Assessment / Lab Activity	<ul style="list-style-type: none"> To find the number of tangents from a given point to a circle. To verify that the length of the tangents drawn from an external points to a circle are equal in length 				

MONTH: JANUARY

Content / Topic	1 st week	2 nd week	3 rd week	4 th week
Chapter 13: Surface Areas and Volumes Chapter 14 : Statistics	Chapter:13 <ul style="list-style-type: none"> Frustum of a cone 	Chapter 14 : <ul style="list-style-type: none"> Mean of the data 	Chapter 14 : <ul style="list-style-type: none"> Mode of the data Median of the data 	<ul style="list-style-type: none"> Graphical representation of Cumulative frequency distribution
Learning Objectives	<ul style="list-style-type: none"> To find the Surface area and Volume of frustum of a cone. Interpretation, representation and analysis of given data, through different types of graphs 			
Expected Learning Outcomes	The student will be able to <ul style="list-style-type: none"> apply the concept of volume of solid figures in new situations. Solve problems based on frustum of cone 			

	<ul style="list-style-type: none"> • Make graphical representation of data such as Ogive and to interpret median from it.
Teaching Aid/Resource	<ul style="list-style-type: none"> • Models of Cube , Cuboids , Sphere , Cone , Cylinder • Smart Class Module.
Lab Activity	<ul style="list-style-type: none"> • To make a cone of given slant height 'l' and base circumference.

MONTH: FEBRUARY

Content / Topic	1st week	2nd week	3rd week	4th week
	Revision + I st Preboard Exams. REVISION (TERM-2)	I st Preboard Exams REVISION(TERM-2)	<ul style="list-style-type: none"> • Ist Pre board Exams. Revision + Common Jaypee Public School Pre Board Exams. (TERM-2) 	<ul style="list-style-type: none"> • Common Jaypee Public School Pre-Board Exams. (TERM-2)
Learning Objectives	To strengthen the concepts learnt			
Expected Learning Outcomes	The students will be able to Recapitulate, practice and strengthen all the concepts for pre-board examinations.			
Teaching Aid / Resources	<ul style="list-style-type: none"> • Sample Papers 			

MONTH: MARCH

Content / Topic	1st week	2nd week	3rd week	4th week	5th Week
	<ul style="list-style-type: none"> • Common Jaypee Public School Pre Board Exams 	<ul style="list-style-type: none"> • Jaypee Public School Preboard. 	Revision	Revision	Revision
Learning Objectives	<ul style="list-style-type: none"> • To strengthen the concepts learnt 				
Expected Learning Outcomes	The students will be able to <ul style="list-style-type: none"> • Recapitulate, practice and strengthen all the concepts for board examinations. 				
Teaching Aid / Resources	<ul style="list-style-type: none"> • Sample Papers 				

MONTH: APRIL

Content / Topic	1st week	2nd week	3rd week	4th week	5th week
	<ul style="list-style-type: none"> • Revision 	<ul style="list-style-type: none"> • Revision 	<ul style="list-style-type: none"> • Revision 	Revision	Revision
Learning Objectives	To strengthen the concepts learnt.				
Expected Learning Outcomes	The students will be able to Recapitulate, practice and strengthen all the concepts for board examinations.				
Teaching Aid / Resources	Sample Papers				
Assessment Lab Activity	Practical exam				