



Introduction: -

The Syllabus in the subject of Mathematics has undergone changes from time to time in accordance with growth of the subject and emerging needs of the society. The present revised syllabus has been designed in accordance with National Curriculum Framework 2005 and as per guidelines given in the Focus Group on Teaching of Mathematics which is to meet the emerging needs of all categories of students. For motivating the teacher to relate the topics to real life problems and other subject areas, greater emphasis has been laid on applications of various concepts.

The curriculum at Secondary stage primarily aims at enhancing the capacity of students to employ Mathematics in solving day-to-day life problems and studying the subject as a separate discipline. It is expected that students should acquire the ability to solve problems using algebraic methods and apply the knowledge of simple trigonometry to solve problems of height and distances. Carrying out experiments with numbers and forms of geometry, framing hypothesis and verifying these with further observations form inherent part of Mathematics learning at this stage. The proposed curriculum includes the study of number system, algebra, geometry, trigonometry, mensuration, statistics, graphs and coordinate geometry, etc.

The teaching of Mathematics should be imparted through activities which may involve the use of concrete materials, models, patterns, charts, pictures, posters, games, puzzles and experiments.

Objectives

The broad objectives of teaching of Mathematics at secondary stage are to help the learners to:

- consolidate the Mathematical knowledge and skills acquired at the upper primary stage;
- acquire knowledge and understanding, particularly by way of motivation and visualization, of basic concepts, terms, principles and symbols and underlying processes and skills;
- develop mastery of basic algebraic skills;
- develop drawing skills;
- feel the flow of reason while proving a result or solving a problem;
- apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method;
- to develop positive ability to think, analyze and articulate logically;
- to develop awareness of the need for national integration, protection of environment, observance of small family norms, removal of social barriers, elimination of gender biases;
- to develop necessary skills to work with modern technological devices such as calculators, computers, etc.
- to develop interest in mathematics as a problem-solving tool in various fields for its beautiful structures and patterns, etc.
- to develop reverence and respect towards great Mathematicians for their contributions to the field of Mathematics;
- to develop interest in the subject by participating in related competitions;
- to acquaint students with different aspects of Mathematics used in daily life;
- to develop an interest in students to study Mathematics as a discipline.

General Instructions:

- As per CCE guidelines, the syllabus of Mathematics for classes IX and X has been divided term wise.
- The units specified for each term shall be assessed through both Formative and Summative Assessments.
- In each term, there will be two Formative Assessments, each carrying 10% weightage.
- The Summative Assessment in term I will carry 30% weightage and the Summative Assessment in term II will carry 30% weightage.
- Listed laboratory activities and projects will necessarily be assessed through formative assessments.

Name Of Book (s) with name of Publication:-

- (1) Mathematics by NCERT
- (2) Comprehensive Mathematics activities and projects by laxmi Publication.

Faculty Head	Name	Phone no.	Email-Id
	Mr. Deepak Makhija	9413345695	deepak.makhija@spsjaipur.com
Faculty Members	Mr. B.L. Sharma	9413345696	Sharmabl32@gmail.com
	Mr. Pradeep Kr. Lodha	9413345694	Pradeep.kumarlodha@spsjaipur.com
	Mr. Paramjeet Singh	9413345910	Paramjeet.singh@spsjaipur.com
	Mrs. Simarpreet Kaur	9413345684	Simarpreetkaursethi@gmail.com
	Mrs. Shivani Kotwal	9414042322	Shivani.kotwal@spsjaipur.com

Periodic Test-1 (By July, 2017)

Syllabus 30%

Ch. no.	Name of Chapter	Marks 20/2=10	Time frame	%
1	Real numbers	4	April	20
2	Polynomials	4	April	20
3	Pair of Linear equations in two variables	4	April/May	20
4	Quadratic equations	4	May	20
5	Arithmetic progression	4	July	20

Activity

Month	Activity Description	Chapter/Topic	Marks (5)	Resources	Activity Details	Learning outcomes	Virtue
April-August	Notebook Assignment	All chapters of algebra Ch.1,2,3,4,5		NCERT Text book	Students to do various types of questions in note book	To strengthen various aspects e.g. knowledge, application, skills	

August	Plotting of linear equations in two variables	Linear equations in two variables		as per lab guidelines	Lab manual	To develop the skill of plotting the graph with applications of linear equations	Collaboration
--------	-----------------------------------------------	-----------------------------------	--	-----------------------	------------	----------------------------------------------------------------------------------	---------------

Periodic Test-2 (September 11-27 ,2017)

Syllabus 60%

Ch. no.	Name of Chapter	Marks 80	Time frame	%
1	Real numbers	6	April	7.5
2	Polynomials	6	April	7.5
3	Linear equations in two variables	6	April	7.5
4	Quadratic equations	6	May	7.5
5	Arithmetic progression	6	July	7.5
6	Triangles	16	July	20
7	Coordinate Geometry	16	July	20
8	Introduction to Trigonometry	10	August	12.5
9	Some Applications of trigonometry	8	August	10

Periodic Test-3 (By Nov.,2017)

Syllabus 30%

Ch. no.	Name of Chapter	Marks (20/2=10)	Time frame	%
10	Circles	6	October	30
11	Constructions	2	October	10
12	Area related to Circles	6	October	30
13	Surface Areas and Volumes	6	October	30

Activity

Month	Activity Description	Chapter/ Topic	Marks (10/2=5)	Resources	Activity Details	Learning outcomes	Virtue
October	Subject enrichment Activity	Lab activity as per cbse guide lines	5	Lab manual	Students to perform activities in math lab and same to be written in practical files.	Conceptual Clarity of theoretical knowledge and its application in day to day life	
Oct. -Nov.	Notebook Assignment	Ch.6,7,8,9,10,11,12	(5)		To construct geometrical figures as per requirement	To develop the skill of construction of geometrical figures	Obedience

Pre-Board (January)100% Syllabus

Chapter weightage as per CBSE Directives /Norms.

Consult Curriculum 2017-18 for Topics

Teaching Strategies

S.No	Unit/Topics To Be Covered	Teaching Strategies
1	Real Numbers	Ability based learning ,Active Learning ,Accelerated Learning ,Discussion Strategies ,Smart Class / Black Board Method ,Learning By Doing Method
2	Polynomials	Ability based learning ,Active Learning ,Accelerated Learning ,Peer Tutoring,Problem Based Learning ,Writing Assignments ,Smart Class / Black Board Method ,Learning By Doing Method
3	Pair Of Linear Equations In Two Variables	Ability based learning ,Active Learning ,Accelerated Learning ,Peer Tutoring ,Problem Based Learning ,Writing Assignments ,Smart Class / Black Board Method ,Learning By Doing Method ,Problem Based Learning ,Writing Assignments
4	Quadratic Equations	Ability based learning ,Active Learning ,Accelerated Learning ,Peer Tutoring ,Problem Based Learning ,Writing Assignments ,Smart Class / Black Board Method ,Learning By Doing Method
5	Arithmetic Progressions	Ability based learning ,Active Learning ,Accelerated Learning ,Peer Tutoring ,Problem Based Learning ,Writing Assignments ,Smart Class / Black Board Method ,Learning By Doing Method
6	Triangles	Ability based learning ,Active Learning ,Accelerated Learning ,Clicker use in class ,Critical thinking ,Discussion Strategies ,Experiential Learning , Learning By Doing Method ,Problem Based Learning ,Writing Assignments
7	Coordinate Geometry	Ability based learning ,Active Learning ,Accelerated Learning ,Clicker use in class ,Peer Tutoring ,Problem Based Learning ,Team Based Learning ,Writing Assignments ,Smart Class / Black Board Method ,Learning By Doing Method
8	Introduction To Trigonometry	Ability based learning ,Active Learning ,Accelerated Learning ,Humor in the classroom ,Team Based Learning ,Writing Assignments ,Smart Class / Black Board Method ,Learning By Doing Method
9	Some Applications Of Trigonometry	Ability based learning ,Active Learning ,Accelerated Learning ,Humor in the classroom ,Problem Based Learning ,Writing Assignments ,Smart Class / Black Board Method ,Learning By Doing Method
10	Circles	Ability based learning ,Active Learning ,Accelerated Learning ,Clicker use in class ,Critical thinking ,Discussion Strategies ,Experiential Learning ,Writing Assignments ,Smart Class / Black Board Method ,Learning By Doing Method
11	Constructions	Ability based learning ,Active Learning ,Accelerated Learning ,Discussion Strategies ,Experiential Learning ,Spaced Learning ,Smart Class / Black Board Method ,Learning By Doing Method ,Team Based Learning
12	Areas Related To Circles	Ability based learning ,Active Learning ,Accelerated Learning ,Discussion Strategies ,Experiential Learning ,Spaced Learning ,Smart Class / Black Board Method ,Learning By Doing Method ,Team Based Learning.
13	Surface Areas And Volumes	Ability based learning ,Active Learning ,Accelerated Learning ,Peer Tutoring ,Problem Based Learning ,Smart Class / Black Board Method ,Learning By Doing Method
14	Statistics	Ability based learning ,Active Learning ,Accelerated Learning ,Critical thinking ,Experiential Learning ,Games/Experiments/Simulations ,Interdisciplinary Teaching ,Project Based Learning ,Writing Assignments , Smart Class / Black Board Method ,Learning By Doing Method
15	Probability	Ability based learning ,Active Learning ,Accelerated Learning ,Clicker use in class ,Games/Experiments/Simulations ,Humor in the classroom ,Problem Based Learning ,Writing Assignments ,Smart Class / Black Board Method ,Learning By Doing Method