

YEAR PLAN 2018– 2019
Grade X MATHEMATICS

The academic year is divided into **two** sessions

Session One: June 2018 to October 2018

Session Two: November 2018 to January 2019

Continuous Assessments: June, July, August

Summative Assessment I: August 2018

Model Exam I: December 2018

Model Exam II: January 2019

Main Learning Objectives: This year plan is expected to help students,

1. to become successful learners who enjoy learning;
2. to understand texts of different subjects so as to communicate knowledge and ideas in ways specific to the subject;
3. to articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts;
4. to use technology to access and provide information and to communicate with others;
5. to understand cross-curricular linkages- connect learning across subject areas;
6. to become confident individuals who are able to live safe, healthy and fulfilling lives;
7. to become responsible citizens who make a positive contribution to society;
8. to understand and apply core concepts and knowledge from various subjects to real life experiences;
9. to respect diversity and plurality
10. to exhibit sensitivity towards environmental issues; learn to manage and utilize resources judiciously.

Session One - JUNE TO OCTOBER 2018

Duration	Topics	Specific Learning Objectives	Thinking skills	Learning process/Activities
June	Arithmetic Progression Geometric Progression Trigonometry: <ul style="list-style-type: none"> • Trigonometrical Identities • Complementary angles. • Heights & Distances. 	Finding general term and sum of their first n terms. Recall identities and use them to solve/prove simple algebraic trigonometric expression	<ul style="list-style-type: none"> • Comparing and contrasting • Extending ideas to life related problems • Drawing inferences • Analysing relationships 	Applications of Arithmetic and Geometric progression. Proving using trigonometric identities. Direct application of complementary angles. Solving 2-D problems using trigonometric tables. Project based on application of Trigonometry in different fields.
July	<ul style="list-style-type: none"> • Statistics: • Graphical Representation • Measures of Central Tendency Probability • Reflection • Section and Midpoint Formulae 	Organise and interpret the given data. Analyze the given data, use the appropriate formulae and solve the problem. Definition of probability—sample space and events Recall reflection Apply section and midpoint formulae	Planning what to do <ul style="list-style-type: none"> • Classifying • Processing information • Making deductions • Testing conclusions 	Finding the upper quartile, lower quartile and median from the ogive. Computation of mean, median and mode for raw and arrayed data. Simple problems on single events in probability. Graphical representation of reflection. Deriving section and midpoint formulae. Project based on Application of Statistics
August	<ul style="list-style-type: none"> • Equation of a straight line 	Learn different forms of equation of a straight line	<ul style="list-style-type: none"> • Processing the information • Predicting outcomes 	Different forms of equation of a straight line. Solving problems.
SUMMATIVE ASSESSMENT 1				
September	<i>Mensuration:</i> <ul style="list-style-type: none"> • Cone and Sphere 	Apply the formulae to find out the area and volume of cone and Sphere.	<ul style="list-style-type: none"> • Planning what to do • Classifying • Applying imagination • Extending Ideas • Processing the information 	Solve direct application problems including inner and outer area; cost, volume and recasting into another solid.
October	<ul style="list-style-type: none"> • Banking • Sales Tax • Shares & Dividends • Similarity 	Acquire knowledge in computing interest for RD Accounts Understand rate of growth and depreciation Differentiate sales tax and VAT.	<ul style="list-style-type: none"> • Classifying • Processing information • Making deductions • Testing conclusions 	Computing MV of a RD Account. Discussing the concept of shares and dividends. Solving problems based on Axioms of similarity, basic theorem of proportionality Showing a

	<ul style="list-style-type: none"> • Circles • Tangents and intersecting chords 	<p>Define the axioms of similarity of triangles.</p> <p>Develop the skill to apply the properties of Circle, Arc and chord.</p> <p>Develop the skill to apply the properties of tangents</p>		<p>video clipping to explain the properties of circle and tangents.</p> <p>Direct application problems on construction of tangents to a circle.</p>
Session Two November 2018 – January 2019				
November	<ul style="list-style-type: none"> • Constructions • Loci 	<p>Develop the skill of construction</p> <p>Properties of locus.</p>	<ul style="list-style-type: none"> • Comparing and contrasting • Classifying • Planning what to do • Giving reasons 	<p>Theorems based on loci.</p> <p>Problems on construction with loci.</p>
December	Model exam I			
January	Model exam II			
	<p>RESOURCES Books :</p> <p>Understanding ICSE Mathematics – M L Aggarwal</p> <p>Foundation Mathematics – R S Aggarwal</p> <p>Together with Mathematics</p>	<p>INTERACTIVE software/websites</p> <ul style="list-style-type: none"> • www.math-aids.com • www.bbc.co.uk/schools/qcsebitesize • www.alphamath.in 		
<p>Facilitators' names: Mrs Bindu P, Mrs.Jisha Jayalal, Mr Raju, Mrs Nirmala</p> <p>Textbook : Concise Mathematics- Grade X (Selina Publications)</p> <p>Approved by the Principal</p>				