ST. MARY'S COLLEGE

FORM 4

SUBJECT- MATHEMATICS

Course Outline 2014-2015

Term 1

Proposed Date /Week	Unit Section / Chapter	Topic	Modules
1-4	9	Coordinate Geometry	Definition of variables Straight line graph, Two points on a line Gradient and one point Length of line Midpoint Gradient and intercept, perpendicular and parallel Simultaneous linear equations
5-10		Algebra	Evaluating formulae Changing subject of formulae Factorization Factorizing quadratic equation Quadratic graph and linear Quadratic Formulae Completing the square (all methods) Variation Indices Binary Operations
REVISION			

Term 2

Proposed Date /Week	Unit Section / Chapter	Topic	Modules
1-2	8 & 14	Relations and Functions	Arrow diagram Types of relations Domain and range Functions Definition of function Composite and inverse
3-5⅓	10	Trigonometry	Pythagoras theorem Trigonometric ratios Trigonometric ratios for angles 30°, 45°, 60° Finding other ratios if one is known Graph of Sine, Cosine , Tangent Trigonometric ratios from -360 to 360 Real life application of trigonometry
6-7	10.3	Geometry 1	Angle of elevation and depression Bearings
7-8	17	Further Trigonometry	Sine , Cosine Rule Problems in 3D
8-9	18.3 - 18.4	Matrices	Using matrices, order of a matrix Addition, subtraction & scalar multiplication Test compatibility for Matrix Multiplication Matrix Multiplication - Row × Column Inverse of a 2 by 2 matrix Solving simultaneous equations Practical application of matrices
10-11	18 & 21	Vectors	Definition of a vector Notation for vectors Graphical representation of vector Adding vectors Triangle and parallelogram law
REVISION			

Term 3

Proposed Date /Week	Unit Section / Chapter	Topic	Modules
1	3	Consumer Arithmetic	Foreign Exchange - Money Management Profit & Loss Simple Interest & Compound Interest Hire Purchase & Depreciation Bills & Wages Rates & Taxes
2 -3	13	Transformation	Graphical work in transformation; Translation, Reflection, Rotation, Enlargement Combining transformation : glide reflection
4 - 6		Statistics	Collecting and organizing data Presenting data, histogram, frequency polygon Pie chart Mean, Mode & Median Measure of spread: Range, Quartiles, Interquartile Range Semi-interquartile range Cumulative frequency - Ogive Analyzing and interpreting statistical data Simple probability

REVISION

Scale drawings
Plans and elevation
Circle geometry
} NB. Jacinta these are moving to Form 5