Year 10 - Mathematics 5.3 Course 2024

TERM 1		
TIMING	**UNIT OVERVIEW**	**ASSESSMENT**
Weeks: 4	**Financial Mathematics** Earning an income, income tax, simple interest, compound interest, compound interest formula, term payments, depreciation.	Task Number: 1 Nature of Task: In class written task
Weeks: 4	**Algebraic Expressions, Expanding and Factorising** Fractional indices, operations with algebraic fractions, expanding binomial products, factorising binomial expressions and algebraic fractions.	Percentage: 20%
Weeks: 3	**Measurement** Area of composite shapes, Surface Area of Prisms, Cylinders and Composite Solids, Volume of Prisms and Cylinders, Capacity conversions, Area of similar figures, Surface Areas and Volumes of similar solids	Week: 10 Reported: Semester 1

TERM 2		
TIMING	**UNIT OVERVIEW**	**ASSESSMENT**
Weeks: 2	**Surds** Year 9 surds review (4 operations, simplifying), binomial products involving surds, rationalising the denominator.	Task Number: 2
Weeks: 4	**Further Trigonometry** Year 9 Review: right angled trigonometry, elevation/depression, bearings Applications of trigonometry in 3D. Non-right-angle trigonometry - Sine and cosine rule, area of triangle, angles of any magnitude. Graphs of trigonometric functions Trigonometric equations and relations.	Nature of Task: In class written task Percentage: 25%
Weeks: 4	**Equations, Inequalities and Logarithms** Equations with algebraic fractions, monic quadratic equations, non-monic quadratic equations, completing the square, quadratic formula, discriminant, equations and formulas, problems, solving and graphing inequalities (&?) solutions. Logarithmic Laws, exponentials	Week: 7 Reported: Semester 1

Year 10 - Mathematics 5.3 Course 2024

TERM 3		
TIMING	**UNIT OVERVIEW**	**ASSESSMENT**
Weeks: 2.5	**Coordinate Geometry** Length, midpoint, gradient of an interval, parallel and perpendicular lines, graphing linear equations, gradient-intercept and general form, point-gradient form, finding equation of a line, equations of parallel/perpendicular lines, coordinate geometry problems.	Task Number: 3 Nature of Task: In class written task
Weeks: 2.5	**Simultaneous Equations** Solving simultaneous equations graphically and algebraically involving substitution and elimination method, problem solving simultaneous equations.	Percentage: 25%
Weeks: 3	**Graphing curves** Direct proportion, inverse proportion, conversion graphs, distance-time graphs, graphs of change, parabola, cubic, higher powers hyperbola, circle.	Week: 6 Reported: Semester 2
Weeks: 2	**Quadratic equations and the parabola** quadratic equations, completing the square, the quadratic formula, quadratic equation problems, higher-order quadratic equations, the parabola, axis of symmetry and vertex of a parabola, point of intersection of a line and curve.	
TERM 4		
	UNIT OVERVIEW	**ASSESSMENT**
Weeks: 3	**Finish off Quadratic equations and the parabola**	
Weeks: 3	**Data** Shape of frequency distribution, quartiles, interquartile range, standard deviation, comparing means and standard deviation, box plots, parallel box plots, comparing data sets, scatter plots, line of best fit, bivariate data involving time, statistics in the media, investigating statistical studies.	Task Number: 4 Nature of Task: In class written task
Weeks: 2	**Beyond year 10 programs / Work experience** Students completing mandatory "all my own work", resume writing and other skills for work. Work experience	Percentage: 30% Week: 3
Weeks: 2	**Geometrical Figures** Review angles on parallel lines, angle properties for triangles and quadrilaterals. Angle sum of polygon, congruent triangle proofs, tests for quadrilaterals, proving properties of triangles and quadrilaterals, formal geometrical proofs, similar figures, finding unknown lengths in similar figures, tests for similar triangles, similar triangle proofs	Reported: Semester 2