MATHEMATICS: Core 1 (C1)

PERSONALISED CHECKLIST

	Page*			
		R	Α	G
1.0 Algebra and functions	1			
1.1 Simplifying expressions by collecting like terms	2			
1.2 The rules of indices	3			
1.3 Expanding an expression	4			
1.4 Factorising expressions	5			
1.5 Factorising quadratic expressions	6			
1.6 The rules of indices for all rational exponents	8			
1.7 The use and manipulation of surds	10			
1.8 Rationalising the denominator of a fraction when it is a surd	11			
2.0 Quadratic functions	15			1
2.1 Plotting the graphs of quadratic functions	16			
2.2 Solving quadratic equations by factorisation	10			
2.3 Completing the square	19			
2.4 Solving quadratic equations by completing the square	20			
2.5 Solving quadratic equations by using the formula	20			
2.6 Sketching graphs of quadratic equations	22			
2.0 Sketching graphs of quadratic equations	25			
3.0 Equations and inequalities	27			
3.1 Solving simultaneous linear equations by elimination	28			
3.2 Solving simultaneous linear equations by substitution	29			
3.3 Using substitution when one equation is linear and the other is quadratic	30			
3.4 Solving linear inequalities	31			
3.5 Solving quadratic inequalities	35			
4.0 Shotshing surges	41			1
4.0 Sketching curves 4.1 Sketching the graphs of cubic functions	41 42			
	42			
4.2 Interpreting graphs of cubic functions				
4.3 Sketching the reciprocal function	49			
4.4 Using the intersection points of graphs of functions to solve equations	52			
4.5 The effect of the transformations $f(x + a)$, $f(x - a)$, and $f(x)+a$	55			
4.6 The effect of the transformations $f(ax)$ and $af(x)$	60			
4.7 Performing transformations on the sketches of curves	64			
5.0 Coordinate geometry in the (x, y) plane	73			
5.1 The equation of a straight line in the form $y=mx + c$ or $ax + by + c = 0$	74			
5.2 The gradient of a straight line	77			
5.3 The equation of a straight line of the form $y-y_1 = m(x - x_1)$	79			
5.4 The formula for finding the equation of a straight line	81			
5.5 The conditions for two straight lines to be parallel or perpendicular	84			
6.0 Sequences and series	91			
6.1 Introduction to sequences	92	 		<u> </u>
6.2 The nth term of a sequence	93	 	ļ	<u> </u>
6.3 Sequences generated by a recurrence relationship	95	ļ		<u> </u>
6.4 Arithmetic sequences	98	ļ		<u> </u>
6 L A with most in comes	100	 	ļ	<u> </u>
6.5 Arithmetic series				
6.6 The sum to n of an arithmetic series 6.7 Using Σ notation	103 107			

MATHEMATICS: Core 1 (C1) PERSONALISED CHECKLIST

	Page*	Page*		
	_	R	Α	G
7.0 Differentiation	112			
7.1 The derivative of $f(x)$ as the gradient of the tangent to the graph $y = f(x)$	113			
7.2 Finding the formula for the gradient of x^n	116			
7.3 Finding the gradient formula of simple functions	120			
7.4 The gradient formula for a function where the powers of x are real numbers	124			
7.5 Expanding or simplifying functions to make them easier to differentiate	125			
7.6 Finding second order derivatives	126			
7.7 Finding the rate of change of a function at a particular point	127			
7.8 Finding the equation of the tangent and normal to a curve at a point	128			
8.0 Integration	133			
8.1 Integrating x^n	134			
8.2 Integrating simple expressions	136			
8.3 Using the integral sign	137			

8.4 Simplifying expressions before integrating

8.5 Finding the constant of integration

138

140