Higher Pupil Record Sheet- Unit 2

Relationships 1.1 Solving Algebraic Equations	NS	OT	VG
Using the factor theorem to identify factors of a polynomial			
Using synthetic division to fully factorise a polynomial			
Using the factor theorem to calculate unknown coefficients			
Using the remainder theorem to find the quotient and remainder			
Determine the x and y-intercepts for a graph of a polynomial			
Determine the function of a polynomial from its graph			
Solving Polynomial equations			
Determine points of intersection between straight lines and curves, or two curves			
Using the discriminant to determine unknown coefficients in quadratic equations			
Solving quadratic inequalities			
L&L Higher Ch 7 P 136-169			

Relationships 1.2. Solving Trig Equations	NS	OT	VG
Solving linear trig equations in degrees			
Solving linear trig equations with compound angles in degrees			
Solving quadratic trig equations in degrees			
Solving linear, compound and quadratic trig equations in radians			
Solve equations in degrees and radians using $\sin^2 x + \cos^2 x = 1$			
Solve equations in degrees and radians using double angle formulae			
Solving trig equations using the wave function			
Solving further trig equations in degrees or radians			
L&L Higher Ch 8 P 170 – 201			

Relationships 1.3 Differentiation	NS	OT	VG
Differentiating functions			
Differentiate simple expressions in the form ax^n			
Express a function in differentiable form, then differentiate			
Evaluate derivatives to find rate of change or the gradient of a curve			
Differentiate trigonometric functions			
Differentiate composite functions using the chain rule			
Using differentiation to find the nature and properties of functions			
Find the equation of a tangent to a curve			
Evaluate where a function is increasing or decreasing			
Determine the stationary points of a function and their nature			
Sketch the graph of a function, showing all key points			
L&L Higher Ch 9 P 202 – 237, Ch 10 P 238 – 264			

Relationships 1.4 Integration	NS	OT	VG
Integrating functions			
Integrating simple expressions in the form ax^n			
Integrating more complex functions in the form $(px + q)^n$			
Integrating trigonometric functions			
Solving differential equations			
Definite Integrals			
Evaluating definite integrals for functions in the form ax^n and $(px + q)^n$			
Evaluating definite integrals for trigonometric functions			
L&L Higher Ch 11 P 265 - 282 , Ch 12 P283 - 290			