Higher Pupil Record Sheet- Unit 3

Applications 1.1 Equations of Lines	NS	OT	VG
Find the equation of a line parallel to a given line			
Find the equation of a line perpendicular to a given line			
Use m = tan θ to calculate gradient or angle			
Use gradients to show that points are collinear			
Find equations of medians, altitudes and perpendicular bisectors			
Solve problems involving medians, altitudes and perpendicular bisectors			
L&L Higher Ch 13 P293- 305			

Applications 1.2 Circles	NS	OT	VG
Determine and use the equation of a circle $(x - a)^2 + (y - b)^2 = r^2$			
Determine and use the general equation of a circle $x^2 + y^2 + 2gx + 2fx + c = 0$			
Use properties of tangency when solving problems			
Determine the intersection of circles or a line and a circle			
L&L Higher Ch 14 P306 – 317			

Applications 1.3 Sequences	NS	OT	VG
Use the terminology and notation associated with sequences			
Use and determine *n*th term formulae			
Determine a recurrence relation from given information			
Use a recurrence relation to calculate a required term			
Find and interpret a limit of a sequence, where it exists			
L&L Higher Ch 15 P318- 327			

Applications 1.4 Application of Calculus	NS	OT	VG
Find the greatest/ least values of an algebraic function on a closed interval			
Find the optimal solution to a problem			
Solve problems using rates of change			
L&L Higher Ch 16 P328- 345			
Calculate the scalar product of two vectors			
Calculate the angle between two vectors using the scalar product			
Work with perpendicular vectors			
The distributive law and the scalar product			
L&L Higher Ch 17 P346 - 369			