

SCHEME 7		
Autumn	Spring	Summer
Solve problems involving perpendicular lines	Recognise and use Fibonacci type sequences and geometric progressions	Completing the square
Use & prove circle theorems	Find the volume and surface area of cones and spheres	Use area of triangle = $\frac{1}{2}ab\sin C$
Trigonometry and Pythagoras in 3D (answers as exact values)	Link ratio to linear functions	Find approximate solutions to equations using iteration
Expanding triple brackets	Bearings with trigonometry and parallel line rules	Construct and interpret equations that describe direct and inverse proportion.
APP	APP	APP
Rationalise denominators (including use of diff 2 squares)	Constructing polygons	Solve simultaneous equations with one linear and one quadratic
Shifting functions (must introduce function notation)	Solve problems involving Prime Factor decomposition	Algebraic Proof
Calculate and interpret conditional probabilities through tree diagrams	Interior and exterior angles and tessellation	Investigation -The Spider and the Fly (see Nrich)
Draw and interpret histograms	Simplify, add and subtract algebraic fractions	Investigating solid shapes using polydron
Apply addition and subtraction of vectors including multiplication by a scalar	Rearranging formulae with unknowns on both sides including using factorisation	Understand and use sampling methods (random, systematic and stratified)
APP	APP	APP