Y9 Autumn

A – B1 – Pythagoras' Theorem	A – B2 – Forming and solving equations	A – B3 – Solving ratio & proportion problems	A – B4 – Three dimensional shapes	A – B5 - Numbers
- Squares and roots - Identifying hypotenuse - Finding missing sides with Pythagoras - Pythagoras problems - 3D Pythagoras (H)	- Solve equations 2 step, brackets, unknowns on one side or both sides - Solve inequalities 2 step, brackets, unknowns on one side or both sides - Inequalities with negatives (H) - Form and solve inequalities and equations - Substitution - Rearrange formulae - Expand binomials - Expand triple brackets (H)	- Direct proportion - Inverse proportion - Direct proportion graphs eg. conversion graphs - Inverse proportion graphs (H) - Best buy problems - Solve ratio problems where one part, the total or the difference are known - Ratio and algebra problems (H)	- 2D and 3D shape properties - Nets of 3D shapes - Plans and elevations - Area of 2D shapes - Surface area of prisms and cylinders - Volume of prisms and cylinders - Spheres, cones, pyramid (H)	- Directed number - Four operations with integers and decimals - Four operations with fractions - Types of number - Prime factors - HCF and LCM - Integers, real and rational numbers - Standard form - Basic surds calculations (H)

Y9 Spring

Sp – B1 – Using percentages	Sp – B2 – Constructions	Sp – B3 – Straight line graphs	Sp – B4 – Maths and money	Sp – B5 - Transformations
- FDP equivalence - Percentage increase and decrease - Reverse percentages - Percentage change - Percentage problems - Repeated percentage change (H)	- Loci from a point or straight line. - Construct angle bisectors - Construct perpendicular bisectors - Construct triangles - Scale drawings - Loci probrems	- Co-ordinates / midpoint recap - Lines parallel to the axis - Plot lines - Gradients and intercepts - Understand y = mx + c - Recognise a line from a graph - Real life graphs - Rearrange into form y =mx+c (H) - Perpendicular lines (H)	- Problems with bills and bank statements - Simple and compound interest - VAT, wages and taxes - Exchange rates - Best buys	- Reflection - Rotational symmetry - Rotation - Translation - Enlargements - integer and fractional (negative H) - Combined transformations

Y9 Summer

Su – B1 - Deduction	Su – B2 - Probability	Su – B3 - Rates	Su – B4 – Algebraic representations	Su – B5 – Congruence and similarity
- Angles in parallel lines - Angles problems - Angles and algebra problems - Angles in polygons - Conjectures - angles / shapes - Constructions recap	- Single event probability - Probability from tables, frequency trees and Venns - Relative frequency / expected outcomes - Tree diagrams (conditional H)	- Speed, distance, time - Distance time graphs - Density, mass and volume - Flow problems - Rates of change - Convert compound units (H)	- Equations recap - Show inequalities on number line - Substitution - Recap linear graphs - Plot quadratic graphs - Plot cubic graphs - Recognising graph shape - Factorise quadratics a=1 (H)	- Congruent shapes - Recap angles in parallel lines - Similar shapes 2D - Areas of similar shapes (H) - Volume of similar shapes (H) - Conditions for congruency in triangles