The Beaconsfield School
A Specialist Arts College

TBS Curriculum Map

Year: …8 (Extend SoW)…. **Subject: …Mathematics……**

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Theme/Topic	Application of Number	Sequences and Equations	Graphing & Properties of Shapes	Triangles and application of Ratio and Percentage	Circles, 3D shapes and introduction to trigonometry	Data Handling & Probability
Skills	Percentage calculations. Factors, multiples, primes and powers. Arithmetic with fractions.	Identifying and generalising linear and quadratic sequences Solving linear and quadratic equations	Plotting graphs of linear, quadratic and cubic functions. Area, Perimeter of simple shapes. Converting metric units	Construction of triangles. Pythagoras' Theorem. Solving direct and inverse proportion problems	Area and Circumference of circles and sectors. Volume and surface area of cuboids and prisms. Use of the trigonometric ratios	Gathering data and presenting graphically. Probability of single, combined and experimental events
Knowledge	Application of decimals to percentage calculations, especially compound interest and taxation. Prime numbers as the building blocks of the whole numbers.	Use of generalisation to describe sequences and patterns. Application of balancing method to solve and rearrange equations and formulae. Quadratic formula as a generalisation of completing the square	Graphical solutions of equations Application and interpretation of distance time and conversion graphs. Application of dimension theory to units of area and volume.	Application of Pythagoras' Theorem. Application of algebra to solving proportion problems	Sine cosine and tangent ratios as properties of the unit circle, and their application to right angles triangles.	Suitability of different graphical formats. Application of the AND and OR rules of probability to complex scenarios.
Cultural Capital	Income Tax bands and calculations	Introduction to numerical methods of equation solving.	Non analytic equation solving giving alternative routes of solution		Pi as an inherent property of circles Application of trigonometry to spatial problems	Avoiding bias in samples and presentation of data
Curriculum overlap						