



Maths - Year 7

Topic list Autumn 1	Topic list Autumn 2	Topic list Spring 1	Topic list Spring 2	Topic list Summer 1	Topic list Summer 2
- Sequences - Algebraic notation and substitution - Expressions and equations	- Place value & ordering and rounding - Four operations - Averages and range - Rounding and estimation	- Graphing data - Fractions, decimals and percentages	- Directed number - Fractions and percentages of amounts - Perimeter and area	- Speed, Distance and time - Properties of number	- Add and subtract fractions - Angles and polygons
Why this Why Now	Why this Why Now	Why this Why Now	Why this Why Now	Why this Why Now	Why this Why Now
- Fundaments of sequences and algebra which is used throughout the curriculum - Enables pupils to describe and continue sequences, understand and use function machines, form and substitute expressions. - Enables pupils to use and interpret algebraic notation, collect like terms and solve one and two-step equations.	- Fundamental skills to be used across the curriculum and years 7-11 - Fundamentals of place value, number lines, ordering numbers and rounding - Fundamentals of understanding mean, mode and median which will be used in cumulative frequency in KS4.	- Develops understanding of coordinate geometry, scales and axes, which are essential for algebra. - Strengthens fluency in converting between representations, which underpins ratio, percentages and probability. - Consolidates and extends KS2 knowledge before tackling more abstract proportional problems	- Introduces pupils to negative numbers in real-life contexts (temperature, money) - Develops proportional reasoning and multiplicative thinking, preparing students for ratio, scaling and percentage change. - Introduces efficient methods and formulas for area, building accuracy and fluency in geometry	- Develops fluency in using and manipulating formulas which is a foundation for algebraic substitution and rearranging equations late in KS3 - Pupils have already met basic measure, units and conversion in KS2, so they have the foundations to extend to compound measures. - Prepares pupils for more complex algebraic rearrangement in Year 8.	- Strengthens fluency with a key operation that underpins later algebraic fraction work. - Prepares students for algebraic fractions later on - Develops use of angle facts - Builds directly on KS2 knowledge of angle facts and simple polygons, moving towards more formal reasoning.
Tier 3 Vocabulary and Reading		Tier 3 Vocabulary and Reading		Tier 3 Vocabulary and Reading	
The Triumph of Numbers by IB Cohen <u>Keywords:</u> Linear, non-linear, terms, unknown, equations	Numbers Don't Lie: 71 Things You Need to Know About the World by Vaclav Sm <u>Keywords:</u> Significant figure, integer, improper fraction, place holder	Perimeter, Area, and Volume: A Monster Book of Dimensions <u>Keywords:</u> Correlation, bar charts, Scatter graph, equivalent, convert, denominator, numerator	Think of a number by Johnny Ball <u>Keywords:</u> Positive, negative, integer, length, compound shape, polygon, increase, decrease	Understanding Charts and Graphs by Christine Taylor Butler <u>Keywords:</u> Multiples, factors, prime number, rearrange, conversion, rate, cube	Sir Cumference and the Great Knight of Angeland by Cindy Neuschwander <u>Keywords:</u> Improper fractions. Mixed numbers, interior angle, exterior angle, vertex