

Year 8 Mathematics Overview (Sets: AA,AB,AC,BA,BB)

Autumn 1

Numbers and the Number System: prime factors, HCF, LCM, rounding to decimal places and significant figures, writing and interpreting numbers in standard form

Calculating: four operations with negative numbers, squaring or cubing negative numbers, substitution involving negative numbers, use the order of operations including powers and roots (BIDMAS)

Autumn 2

Visualising and Constructing: enlargement with fractional scale factors, know and understand the vocabulary of plan and elevations, scaling in diagrams, understand bearings and construct scale diagrams

Understanding Risk 1: know and use vocabulary of probability, list all outcomes, work out theoretical probability, know and apply the fact that all probabilities sum to 1

Algebraic Proficiency: Factorise expressions, know the laws of indices, substitute positive and negative numbers into formulae, and change the subject of a formula

Termly assessments

Spring 1

Exploring Fractions, Decimals and Percentages: conversions

Proportional Reasoning: ratio problems, compound units

Pattern Sniffing: linear sequences

Spring 2

Investigating Angles: calculating angles using angle facts involving parallel lines, triangles and polygons

Calculating Fractions and Percentages: four operations with fractions, percentages problems involving increase and decrease and original amount

Solving Equations and Inequalities: solve linear equations up to 3-step equations, solve simultaneous equations graphically

Termly assessments

Summer 1

Calculating Space: area and circumference of circles, volume of cylinders

Algebraic Proficiency: Straight line graphs $y = mx + c$, quadratic graphs, distance-time graphs, speed-time graphs

Understanding Risk 1: Using Venn diagrams, space diagrams to calculate probabilities, use frequency trees to calculate probabilities

Summer 2

Presentation of Data: discrete and continuous data, plot scatter diagrams and correlation

Measuring Data: averages and the range from frequency tables

End of year assessments