



YEAR 8 MATHEMATICS

No	Topic	Textbook	CATs
1	Number Skills and Sequences <i>Addition, Subtraction, Division and Multiplication of Whole Numbers; Understand Order of Operations; Recognise prime, square and cube numbers; Know the difference between multiples and factors; Spot patterns in lists of numbers.</i>	1	CAT 1 - Homework (Topic 1)
2	Introducing Geometry <i>Understand and use degrees; Estimate angles; Measure angles using a protractor; Identify different types of angles; Calculate missing angles in a diagram.</i>	1	
3	Introduction to Algebra (1) <i>Understand that letters can represent unknown values; Understand and combine like terms to simplify expressions; Solve equations; Substitute numbers for letters in an expression.</i>	1	CAT 2 - Test (Topic 3)
4	Collecting and Displaying Data <i>Improve skill of managing information and working with others; Organise data using tally charts; Draw bar charts, bar-line graphs, line graphs, pictograms, two-way tables, pie charts; Understand what discrete data is and how to group it.</i>	1	CAT 3 - Homework (Topic 4)
5	Prime Factors, HCF and LCM <i>Write a number as a product of its prime factors; Find the HCF and LCM of 2 or more numbers by listing; Find the HCF and LCM by prime factorisation; Solve problems involving HCF and LCM.</i>	1	CAT 4 - Test (Topic 5)
6	Co-ordinates <i>Understand that axes show positive and negative numbers; Plot and write down points involving positive and negative co-ordinates; Draw shapes using co-ordinates.</i>	2	
7	Symmetry <i>Understand line symmetry and find lines of symmetry in a shape; Understand rotational symmetry and find the order of rotational symmetry of a shape; Find planes of symmetry in a 3-D shape.</i>	2	WINTER EXAM
WINTER EXAMINATION (Topics 1 - 7)			

8	Fractions, Decimals and Percentages <i>Understand and use numerators, denominators and equivalent fractions; Write a fraction as a decimal/percentage and vice-versa; Find a fraction of a quantity; Add and subtract fractions and decimals; Understand and use mixed numbers and improper fractions; Understand the effect of multiplying/dividing by powers of 10; Multiply and divide decimals; Rounding numbers to a certain number of decimal places.</i>	2		CAT 5 - Homework (Topic 8)
9	Angles and Constructions <i>Construct a triangle using compasses and protractor; Identify and name different types of triangle; Construct perpendicular and angle bisectors.</i>	2		
10	Introduction to Algebra (2) <i>Multiplying together algebraic terms; More simplification and substitution; Solve equations including a fraction; Solve equations needing more than one step.</i>	2		CAT 6 -Test (Topic 10)
11	Measure and Metric Units <i>Understand and use metric units of length, weight (mass) and time; Be familiar with the Imperial system; Convert from one metric unit to another.</i>	3		
12	Averages from a list of Numbers <i>Calculate the three averages (mean, median and mode) for a list of numbers; Calculate the range for a list of numbers.</i>	3		CAT 7 - Homework (Topics 11 and 12)
13	Parallel Lines and Angles <i>Understand the term 'parallel'; Understand and use corresponding, alternate and interior angles; Solve problems involving these angles.</i>	3		CAT 8 - Homework (Topics 9 and 13)
14	Negative Numbers and Formulae <i>Understand where negative numbers are used in a real-life context; Use < and > signs; Add and subtract with negative numbers; Multiply and divide with negative numbers; Use a formula to generate answers and use negative numbers in formulae.</i>	3		CAT 9 - Test (Topic 14)
15	Introduction to Probability <i>Understand and use the probability scale; Use the correct notation for writing the probability of an event; Understand "relative frequency".</i>	3		SUMMER EXAM
SUMMER EXAMINATION (Topics 1 - 15)				
16	Financial Capability - Holiday Project <i>Use and improve mental maths in everyday decision making; Apply these skills to practical problems involving holiday budgets.</i>			