



## Mathematics Department – Second Form Scheme of Work

### Textbook:

### Key Stage 3 Mathematics

Unit	Title	Topic	Page Number	Skill Practice
1	<b>Number Work</b>	Basic Arithmetic	4-7 9-12	4-6 8-14
		Place Value and Ordering Numbers	57	1
		Rounding	57	2
2	<b>Types of Numbers</b>	Multiples	23	5 & 6
		Lowest Common Multiple	Ex4I Q1-5	Worksheet
		Prime, Square, Cube, Square and Cube roots and Triangular Numbers	21	1-3
		Factors	24	7
		Prime Factors	24	8
		Highest Common Factor	Ex4I Q6	Worksheet
3	<b>Fractions</b>	Fraction of a shape	17 & 18	1 & 2
		Equivalent Fractions and Simplifying Fractions	18 & 19	3 & 5
		Adding and Subtracting Fractions	Ex2B	Worksheet
		Mixed Numbers and Improper Fractions	Ex2E	Worksheet
		Adding and Subtracting with mixed numbers	Ex2F, 2G,8J	Worksheet
4	<b>Angles</b>	Measuring and drawing angles	129 132	2 3
		Angles on a line, angles at a point and opposite angles	162	1-3

Unit	Title	Topic	Page Number	Skill Practice
		Angles in a Triangle	163 & 164 167	4 & 5 7
		Angles in a Quadrilaterals	Ex15D	Worksheet
5	<b>Algebra</b>	Simplifying Expressions	49 52	3 & 4 8 & 9
		Substitution	53 & 54	11-14
		Creating Algebraic Expressions	48	1 & 2
		Solving Linear Equations	72	1,2,5 & 6
<b>Test on Units 1-5</b>				
6	<b>Statistics and Data Handling</b>	Frequency Tables and Tally charts	223	1
		Pictograms	Ex6B	Worksheet
		Bar Charts	223 228	1 1
		Line Graphs	249 & 250	1
		Pie Charts	256	4
7	<b>Fractions</b>	Multiplying fractions	Ex8K	Worksheet
		Dividing fractions	Ex8L	Worksheet
8	<b>Decimals</b>	Rounding with decimals	57	3
		Addition and Subtraction with decimals	13-16	1-7
		Multiplication and Division with decimals	38 & 39	2-5
9	<b>Statistics</b>	The Mode	224	1
		The Median	225 & 226	2
		The Mean	236 & 237	1 & 2
		The Range	239	4
10	<b>Metric and Imperial Measurements</b>	Measurement	139 & 140	1
		Metric Units	141-143	2-7
<b>Test on units 6-10</b>				

Unit	Title	Topic	Page Number	Skill Practice
11	<b>Perimeter and Area</b>	Perimeter	122	1
		Area and Perimeter of Squares and Rectangles	173 & 174	1-3
		Area of Compound Shapes	175	4
		Area of Triangles	176	5
12	<b>Negative Numbers and BIDMAS</b>	Number Line and Negative Numbers	44 & 45	1-3
		Arithmetic with Negative Numbers	47	5
		Multiplying and Dividing with Negative Numbers	Ex8M	Worksheet
		BIDMAS	Ex1C	Worksheet
13		<b>Coordinates and Graphs</b>	Conversion Graphs	230
	Coordinates and Straight Line Graphs		27 & 28 76 & 77	1 & 2 3-5
14	<b>Significant Figures and Estimation</b>	Rounding with Significant Figures	84	1-4
		Estimation and Approximation	34-36 85	1-5 5
<b>Test on Units 11-14</b>				
15	<b>Ratio</b>	Simplifying Ratios	64	1 & 2
		Dividing up into a given ratio	65	3 & 4
		Calculations with Ratios	67	5
16	<b>Percentages</b>	Converting between Fractions, Percentages and Decimals	20 61	6 & 7 1-3
		Calculating a Percentage of a Quantity	42	3 & 4
		Percentage Increase and Decrease	90 & 91	1-6

Unit	Title	Topic	Page Number	Skill Practice
		Giving one Quantity as a Percentage of another	62	4 & 5
17	<b>Transformations</b>	Translations	150 & 151 152	1 & 2 3 Q8-12
		Reflections	109-111 151	1 & 2 3 Q1-4
		Rotations	113 152	1 3 Q5-7
		Enlargements	193	1
18	<b>Pythagoras's Theorem and Bearings</b>	Bearings	134	5 & 6
		Finding the hypotenuse	198	6
		Finding a side	200	8
		Pythagoras in context	199 200	7 8
<b>Test on Units 15-18</b>				
19	<b>Surface Area and Volume</b>	Volume and Surface Area of a Cuboid	188 203	1 1 Q1-4
		Volume and Surface Area of prisms	203	1 Q5-10
20	<b>Probability</b>	Probability Scale	233	1
		Calculating Probabilities	260 & 261	1 & 2
		Complementary Events	281	3
		Addition rule for events	Ex18D	Worksheet
		Experimental Probability and Relative Frequency	Ex18E	Worksheet
21	<b>Sequences and Patterns</b>	Number Sequences	22 68	4 1-3
22	<b>The Circle</b>	Parts of the Circle	Ex16A	Worksheet
23	<b>Mental Mathematics</b>		Mymaths	
<b>Summer Assessment 1.5 hour non-calculator paper</b>				