YEAR 10 COURSE GUIDE

	Selected Success Criteria, from this year's course	
10A	• Multiply numbers using 'long multiplication' e.g. 146 x 72 • Divide numbers using the 'bus stop' method e.g. 1472 ÷ 4 • Add and subtract decimals, and solve money problems	
10B	• Solve problems involving negative numbers e.g. temperatures • Add or subtract a negative number e.g. 34 + -28 • Find the highest common factor (HCF) of two numbers • Know the definition of a prime number, and recognise prime numbers	
10C	• Evaluate positive and negative powers • Understand and recognise square numbers and cube numbers • Work out square roots and cube roots, including with a calculator • Use the rules for multiplying and dividing with powers e.g. $5^4 \times 5^{12} = 5^{16}$	
10D	• Understand place value in large whole numbers and decimals • Multiply and divide by 10, 100 and 1000 • Put decimals into size order • Understand and use the symbols =, ≠, <, >, ≥, ≤	
10E	• Simplify fractions • Understand and make equivalent fractions • Convert mixed numbers to improper fractions • Multiply and divide with fractions and mixed numbers	
10F	• Multiply and divide with algebra e.g. 4a x 5b • Expand a single bracket • Use the rules for power 0 e.g. 8^0 and brackets e.g. $(2h^4)^3$	
10G	• Calculate fractions of quantities • Put fractions in order of size, using a common denominator • Convert improper fractions to mixed numbers • Add and subtract fractions	
10H	• Simplify by 'collecting like terms' e.g. $5h + 2g – 4h + g^2 + 7$ • Substitute positive and negative numbers into expressions	
10I	• Find the lowest common multiple of two numbers • Use a factor tree to write a number as a product of its prime factors • Round whole numbers to the nearest 10, 100, or 1000	
10J	• Solve equations by 'balancing' • Solve equations with the 'x' on both sides e.g. 5x + 3 = 3x – 12 • Solve equations with brackets	
10K	• Count the faces, edges, vertices and curved surfaces of 3D shapes • Draw a plan and elevation of a 3D shape • Recognise a 3D shape from its plan and elevations	
10L	• Calculate percentages without a calculator • Increase or decrease by a percentage, without a calculator	

10M	• Round whole numbers and decimals to 1 significant figure • Estimate the answer to a calculation • Add and subtract with mixed numbers	
10N	• Understand the 0-1 probability scale • Work out theoretical probabilities • Fill in missing numbers in a frequency tree • List all the possible outcomes e.g. all the possible choices from a menu	
10O	• Work out the mean, median and mode averages for simple data • Work out the range, understanding it as a measurement of 'spread' • Identify the mode and range from a table of data • Calculate the mean from a table of data	
10P	• Convert between metric units e.g. metres and centimetres • Convert between other units, and currencies	
10Q	• Work out the perimeter of shapes, including compound shapes • Calculate the circumference of a circle • Find the perimeter of a semi-circle and other shapes involving circles	
10R	• Recognise acute, obtuse, reflex and right angles • Measure and draw angles with a protractor • Use the angle rules for angles at a point and on a straight line • Use the fact that opposite angles are equal • Calculate missing angles in triangles and quadrilaterals	
10S	• Expand two single brackets e.g. $5(2d + 4) - 2(d - 7)$ • Work out the next term of a sequence, explaining your thinking • Draw the next pattern in a sequence, and think about later patterns	
10T	• Increase or decrease by a fraction • Multiply two decimals • Round to decimal places	
10U	• Complete bar charts, and use them to answer questions • Complete pictograms, and use them to answer questions • Construct a pie chart by calculating the angles	
10V	• Find the volume of a cube or cuboid • Find the volume of a triangular prism • Find missing angles near parallel lines	
10W	• Work out percentages using a calculator • Increase or decrease by a percentage, using a calculator • Work out what percentage a number has changed by	
10X	• Compare data using the range and the mean (or median) • Complete a sample space diagram and use it to find probabilities	
10Y	• Reflect a shape in a mirror line, including a diagonal mirror line • Rotate a shape using tracing paper • Translate (move) a shape using a vector • Enlarge a shape using a scale factor, including a fraction scale factor	