Revision 'Must Know' Checklist: Y7 Maths MA and HA Classes

Below is a checklist of everything you must know to be successful by the end of this year.

Number	Algebra	Geometry and Measures	Ratio and Proportion	Statistics and Probability
- Work out intervals on a number line - Position decimals on a number line - Understand decimal place value - Round numbers to a given number of decimal places - Round to significant figures - Write powers of 10 in standard form - Write positive integers in the form a x $10n$ - Understand negative powers of 10 Write decimal numbers in the form a x 10^n - Add and subtract using standard form - Represent tenths and hundredths as diagrams and on number lines - Interchange between fractional and decimal number lines - Work with fractions over 1 - Convert between fractional and decimal fifths and quarters - Understand the relationship between fifths and tenths, quarters, and hundredths - Work confidently with percentages - Convert fluently between simple fractions, percentages, and decimals	- Describe and continue a sequence given diagrammatically - Predict and check the next term of a sequence - Represent sequences in tabular and graphical forms - Recognise whether a sequence is linear or non-linear - Continue a linear or non-linear sequence - Explain the term-to-term rule for linear or non-linear sequences - Use letters to represent unknown numbers - Use correct algebraic notation - Find a function given inputs and outputs - Apply more complex functions to variables - Find unknown functions for variable inputs and outputs - Work with numbers and variables in two-step function machines - Substitute values into one and two step expressions - Generate sequences by substituting into an expression	- Calculate the area of a rectangle, parallelogram, and a triangle - Calculate the area of a trapezium - Know how much each of the key metric measures represents - Choose the most sensible metric measurement - Understand the differences between units of measure - Convert between units of length, mass, and capacity - Classify angles and triangles - Draw and measure angles up to 360° - Use angle notation to describe parallel and perpendicular lines - Describe quadrilaterals using knowledge of parallel and perpendicular lines - Construct a triangle given three sides, two sides and an angle or two angles and a side - Know and apply the sum of angles at a point, on a straight		- Solve problems with the median and range - Understand when the median and range are useful - Understand and use frequency trees and interpret bar charts - Find a mean from data and a table - Interpret pie charts using proportion and by measuring angles - Draw pie charts - Use and understand the probability scale - Find the probability of a single event - Understand and use the knowledge that probabilities sum to 1 - Understand and use the vocabulary and symbols associated with sets - Interpret and create Venn diagrams

• Convert mixed numbers and improper fractions using diagrams and number lines • Understand, find, and use equivalent fractions • Understand fractions as divisions and apply knowledge of fractions to sequence problems • Solve problems involving addition and subtraction • Read the time from both Digital and Analogue formats • Solve problems involving time • Use and interpret timetables to solve problems. • Find the highest common factor (HCF) and lowest common multiple (LCM) of two numbers by listing • Work out the product of prime factors • Use multiple methods to multiply by 0.1 and 0.01 • Use different formal methods to multiply integers and decimals • Understand and correctly apply the order of operations • Find a fraction of a given amount including improper fractions • Use a given fraction to find the whole and/or other fractions • Find a percentage of a given amount using both calculator and non-calculator methods • Calculate percentages from a given percentage • Understand directed number in context and order directed numbers	• Plot functions as graphs • Understand the meaning of equality • Understand and use bar models and fact families • Form and solve one-step and two-step equations • Use bar models, fact families and function machines to help solve two-step equations • Understand the meaning of like and unlike terms • Simplify algebraic expressions by collecting like terms • Understand the meaning of equivalence and to recognise equivalent expressions • Add and subtract simple algebraic fractions • Make and test conjectures • Use counter examples to disprove a conjecture	line, in a triangle and in a quadrilateral • Solve problems using the properties of triangles, quadrilaterals, and other angle rules • Find and use the angle sum of any polygon • Investigate angles in parallel lines • Understand and use parallel line angle rules		• Understand and use the intersection and union of sets • Understand and use the complement of a set

- Perform calculations that cross zero - Add and subtract directed numbers fluently - Divide and multiply directed numbers fluently - Add and subtract fractions with the same denominator (including mixed/improper numbers) - Add and subtract fractions from integers - Find and recognise equivalent fractions - Add and subtract fractions with different denominators and improper fractions and mixed numbers - Use fractions in algebraic contexts - Use equivalence to add and subtract decimals and fractions - Recognise and identify prime, square, and triangular numbers - Identify factors of numbers and expressions - Use a Venn diagram to calculate HCF and LCM				