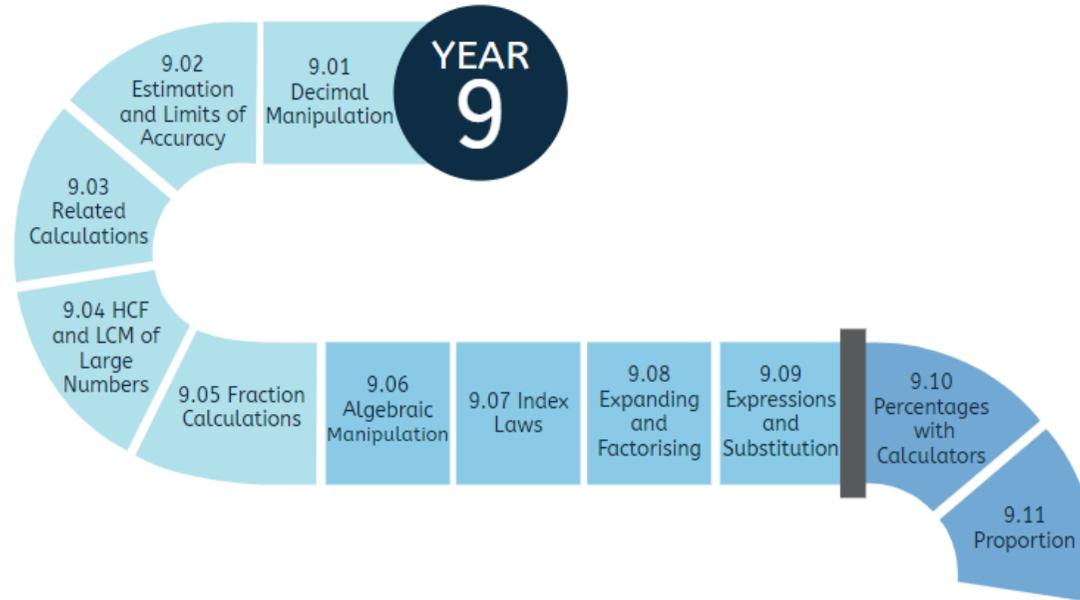




Holland Park School | Year 9 Maths: Autumn Term



Overview	Autumn Term Topics 9.01 – 9.11
Assessment	Fortnightly Topic Assessment
Key words	Multiple common factor (HCF) Linear Approximate Factor Simplify Calculate Venn diagram Divisibility Combinations Work out Prime number Horizontal Product of Evaluate Prime factor Algebraic expression Significant figures Square Algebraic expression Significant figures Square Perfect square Outcome Highest Integer Estimate Lowest common multiple (LCM) Term Formula Substitute Integer Estimate

Topics	Key content	Sparx Clips	Knowledge Organiser link
9.01 Decimals	Apply all four operations using non-calculator methods when working with decimals; this includes both dividing a decimal by an integer and dividing a number by a decimal.	U417, U478, M462, U735, U127, U293, U453, U868, U976	

9.02 Estimation and Accuracy	Use rounding in order to complete estimations (rounding to both one significant figure and applying sensible rounding), using inequality notation to write error intervals from both rounding and truncation.	U480, U298, U731, U965, U225, U657, U587, U108, U301	
9.03 Calculations	Recognise and use relationships between operations in order to write down the answer to a related calculation from a given calculation.	U735	
9.04 HCF and LCM	Use prime factor decomposition and Venn diagrams in order to find the HCF and LCM of large values.	U211, U751, U529, U236, U739, U250	
9.05 Fractions	Apply all four operations using non calculator methods when working fractions and mixed numbers involving different denominators, finding the fraction of an amount, writing one number as a fraction of another and to find the reciprocal of an integer, decimal or fraction.	U736, U692, U793, U475, U224, U544, U538, U881, U916, U163	
9.06 Algebraic Manipulation	Collecting like terms and simplifying expressions involving all four operations, the identity symbol, adding fractions with algebraic numerators, multiplying and dividing simple algebraic fractions	M795, U613, M830	
9.07 Index Laws	Working with the laws of indices, this includes negative and fractional indices, using index notation for integer powers of 10, including negative powers.	U105, U622, U103, U437, U685, U457, U824	
9.08 Standard Form	Converting between ordinary numbers and standard form. Calculating with standard form including multiplication, division, addition and subtraction.	U330, U534, U264, U290, U161	
9.09 Expanding and Factorising	Expanding double brackets, factorising quadratics (where the coefficient of x^2 is 1), difference of two squares.	U179, U365, U768, U178, U963	
9.10 Forming Expressions and Substitution	Substitution into algebraic formulae, basic functions - inputs and outputs, use algebra to show expressions are equivalence, know the difference between an equation and an identity.	M175, M428, U201, U585, U144	
9.11 Proportion	Use proportion to answer problems involving exchange rates and best buys. Introduction to inverse proportion, interpret conversion graphs.	U721, U610, U357, U640, U407, U364, U138, U238, U369	