Mathematics

Contact: kleachman@glenmoorandwinton.org.uk

Students will sit one calculator and one non-calculator exam. The non-calculator paper is 45 minutes long and the calculator paper is 1 hour long. Both exams will assess the knowledge students have obtained from the first term of study, as well as their general mathematical skills.

Students are advised to revise the following topics using the independent learning page on Sparx Maths. They will also find it useful to revise the content in their knowledge organiser.

Unit	Topic	Content	Sparx topics –
9.01	Decimal Manipulation	Apply all four operations using non calculator methods when working with decimals, including 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 Limits of accuracy	Use rounding in order to complete estimations and using inequality notation to write error intervals from both rounding and truncation.	U480, U298, U731, U965, U225, U657, U587, U108, U301
9.03	Related 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 & LCM of large numbers	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	Fraction Calculations	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.	M719, M678, GCSE content: U264, U290
9.09	Expanding & Factorising	Expanding double brackets, factorising quadratics (where the coefficient of x^2 is 1), difference of two squares.	U179, U365, U768, U178, U963