Learning Programme – Mathematics – 1st Year

Topic/ Content	Objectives/Skills	Homework	Assessment	Success Criteria (for E/S/D at KS3)	Stretch & Challenge (Thirst for Learning)
	Michaelmas First Half Term				
• Order of operations • Add, subtract, multiply and divide whole numbers • Rounding whole numbers and decimals to a required degree of accuracy • Upper and lower bounds (basic) • Add, subtract, multiply and divide decimals • Add, subtract, multiply and divide negative numbers • Using powers and roots • Calculating averages: mean, median, mode and range from raw data		Students will be set regular homework that is either teacher marked, peer marked, self-marked or computer marked.	Half Term Test (week before October half-term) Two to three teacher marked pieces of homework will be set each half-term.	Mainly determined from Half-Term test, however, class work & homework may also be used. Grade boundaries for E, S & D dependent on overall scores across the year group.	Students will be challenged using extension questions on the topics they are studying, designed to develop their ability to solve multi-staged problems.

Topic/ Content	Objectives/Skills	Homework	Assessment	Success Criteria (for E/S/D at KS3)	Stretch & Challenge (Thirst for Learning)
	Michaelmas Second Half Term				
• Ratio simplify and divide a quantity by given ratio (part 1) • Finding and recognising factors, multiples and primes • Finding HCF and LCM • Drawing factor trees • Venn diagrams to illustrate prime factor decomposition • Use and interpret algebraic notation • Forming simple expressions • Simplifying Expressions • Algebraic substitution • Expanding single brackets		Students will be set regular homework that is either teacher marked, peer marked, self-marked or computer marked.	Half Term Test (two weeks before Christmas holiday) Two to three teacher marked pieces of homework will be set each half-term.	Mainly determined from Half-Term test, however, class work & homework may also be used. Grade boundaries for E, S & D dependent on overall scores across the year group.	Students will be challenged using extension questions on the topics they are studying, designed to develop their ability to solve multi-staged problems.

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	Lent Term				
• Properties of quadrilaterals • Finding areas and perimeters of rectangles, triangles, parallelograms and trapeziums • Draw, measure and name angles • Solving problems involving angles and parallel lines • Solving Linear Equations • Factorising expressions • Rearranging formulae (basic) • Equivalent fractions and cancelling down fractions • Convert between improper fractions and mixed numbers • Add and subtract fractions and mixed numbers • Multiply and divide fractions • Construct and interpret statistical diagrams including pictograms, bar charts, line graphs, pie charts, frequency polygons		Students will be set regular homework that is either teacher marked, peer marked, self-marked or computer marked.	Term Test (week before Easter holiday) Two to three teacher marked pieces of homework will be set each half-term.	Mainly determined from Half-Term test, however, class work & homework may also be used. Grade boundaries for E, S & D dependent on overall scores across the year group.	Students will be challenged using extension questions on the topics they are studying, designed to develop their ability to solve multi-staged problems.

Topic/ Content	Objectives/Skills	Homework	Assessment	Success Criteria (for E/S/D at KS3)	Stretch & Challenge (Thirst for Learning)
	Trinity Term				
• Finding the area and circumference of circles • Calculate interior and exterior angles of a polygon • Convert between fractions, decimals and percentages • Calculate percentages of amounts • Ratio & Proportion Unitary method (part 2) • Generating term-to –term sequences, including nth term • Recognise other sequences including Pascal's triangle, Fibonacci sequence and non-linear patterns such as square, triangular and cubic numbers • Recognise arithmetic and geometric sequences • Understand that the probabilities of all possible outcomes sum to 1 • Generate theoretical sample spaces including (two-way tables Understand single and combined events with equally likely, mutually exclusive outcomes • Calculate theoretical probabilities • Understand experimental probabilities and use it to compare results • Set notation (basic) and Venn diagrams • Use frequency trees to solve problems		Students will be set regular homework that is either teacher marked, peer marked, self-marked or computer marked.	End of Year Exam (close to May Half-Term), on all topics covered up to that point. Two to three teacher marked pieces of homework will be set each half-term.	Mainly determined from End of Year Exam, however, Half-Term tests, class work & homework may also be used. Grade boundaries for E, S & D dependent on overall scores across the year group.	Students will be challenged using extension questions on the topics they are studying, designed to develop their ability to solve multi-staged problems.