|  |  |  |
| --- | --- | --- |
| **Mathematics - Year 11** | | |
| Throughout the year, pupils will be exploring and developing a range of mathematical skills and applications. This will include number, algebra, shape and space and handling data. Pupils will develop their problem solving skills by applying their knowledge of mathematical concepts to questions based on real life situations. | | |
| **Topics Covered** | | |
| **Term 1** | **Term 2** | **Term 3** |
| * fractions * ratio and proportion * sequences / nth term * brackets / factorising * solving equations * linear and quadratic graphs * angles * area, perimeter and volume * transformations * averages | * percentages * inequalities * formulae * loci and constructions * parallel lines * transformations * Pythagoras’ Theorem * stem and leaf diagrams * probability | * types of number * rounding and estimating * exchange rates * trial and improvement * plans and elevations * circles * metric units * pie charts * questionnaires |
| **Assessment/Exams Information** | | |
| **December** | **March** | **June** |
| 2 exam papers externally assessed | 2 exam papers externally assessed | 2 exam papers externally assessed |
| Cross curricular | | |
| **Literacy** :   * Constructing algebraic expressions and equations. * Constructing sentences to describe transformations. | **Literacy :**   * Correct use and understanding of words describing probability. * Read problem solving questions with care and understanding. | **Literacy :**   * Constructing sentences to visualise 3D shapes. * Correct spelling of 2D and 3D shape names. |
| **Numeracy :**   * Use ratio and proportion. * Write the next terms of a sequence and find the nth term. * Reflect, rotate, translate and enlarge 2D shapes. * Know how to calculate area and perimeter of a number of different shapes. * Solve linear equations. | **Numeracy :**   * Use rulers, protractors and compasses in construction. * Concert between fractions, decimals and percentages. * Introducing the use of letters to replace numbers and the rules used. | **Numeracy :**   * Using and understanding the different types of numbers (even, odd, prime, square, cube…) * Convert between different units of measurements. |
| **PSHCE :**   * Linking area and perimeter to real life questions. * Real life questions looking at proportional reasoning. | **PSHCE :**   * Being able to work as a team when visualising. * Working together to solve real life problems. | **PSHCE :**   * Discuss the effects of different types of data have on society. * Linking measurements to real life. |
| **Homework**  Homework issued every 4 lessons. Homework consisting of exam based questions, consolidation and extended learning from weekly tests. Online homework via My Maths or Maths Watch can be used where appropriate. | | |
| **Additional Support:**  Pupils will be given regular tests. Intervention sessions will then be set up according to GAP analysis from both formal end of term exams and weekly tests. | | |
| **Extra-curricular/Enrichment:**  Intervention groups after school on Wednesdays run every week.  Help is available to students at lunch time should they need help with their homework or weekly tests. | | |