**Year 8 Revision List – Core Paper**

|  |  |
| --- | --- |
| **Algebra** | write and simplify expressions |
| substitute positive values into an expression/formula |
| expand a single bracket |
| use a simple word formula |
| continue and explain arithmetic sequences |
| continue and explain geometric sequences |
| find and use nth term of an arithmetic sequence |
| recognise horizontal and vertical lines |
| plot linear graphs from tables of results |
| **Data** | calculate mode, median, mean and range for small data sets |
| find the mean and mode of a frequency table |
| use words to describe probability |
| list all the outcomes of two events |
| express probability as a fraction |
| calculate the probability of an event not happening |
| tally data in groups |
| draw and interpret bar chart and dual bar charts |
| construct and interpret pie charts |
| **Number** | calculate with negative numbers |
| identify types of numbers: odd, even, prime, factor, multiple, squares |
| find a number as a product of prime factors, find HCF and LCM |
| use the order of operation in calculations BIDMAS |
| simplify ratios into lowest terms |
| solve simple direct proportion problems |
| share in a ratio |
| convert decimals, fractions and percentages |
| calculate fractions of amounts |
| add/subtract fractions with different denominators |
| problem solving with timetables and mileage charts |
| find time intervals |
| interpret travel graphs and conversion graphs |
| **Shape** | converting units of length (mm, cm, m , km) |
| Calculate perimeter of shapes |
| Calculate Area: rectangle, parallelogram, triangle |
| identify types of angles, estimate and measure angles |
| understand the properties of triangles |
| calculate angles: point, line, triangle, vertically opposite |
| know names of polygons |
| name 3D solids, understand the terms vertices/edges/faces |
| produce isometric drawings of solids |
| identify nets of solids |
| calculate volume and surface area of a cuboid |
| volume problems |