



## The Mall School

### Curriculum Guide

#### Mathematics – Summer Term

##### Year 8

Teachers:	Dr Alistair Miller & Mr Martyn Miller
Lessons:	2 x 40min, 1 x 60min, 1 x 70min
Homework:	2 x 40min (Wednesday & Friday)

##### Introduction:

The mathematics syllabus is based on a spiral curriculum where the same study units are covered each year but in greater depth. The Common Entrance examinations comprise of two written papers, one calculator and one non-calculator, and a mental arithmetic test. At the end of the year pupils will sit the required level for their chosen school. The majority of the year is consolidation work as the syllabus would have been completed early in the year.

##### Key Objectives:

- Recognise when fractions or percentages are needed to compare proportions; solve problems involving percentage changes. Extend mental methods of calculation strategies, working with decimals, fractions, percentages, factors, powers and roots.
- Identify patterns within sequences and find the  $n$ th term in a linear sequence.
- Understand the order of precedence and effect of powers. Use index notation for integer powers and simple instances of the index laws.
- Use  $y = mx + c$  to find the gradient and  $y$ -intercept of any given line.
- Distinguish the different roles played by letter symbols in equations, identities, formulae and functions.
- Solve increasingly demanding problems; explore connections in mathematics across a range of contexts.

These key objectives will be covered alongside others in the units of work in each term. The topic areas to be covered for the Spring Term are as follows:

- Number
- Sequences
- Fractions and Percentages
- Solving Equations and Inequalities
- Straight Line Graphs
- Bearings
- Angles

##### Resources:

All boys must bring the following equipment to all lessons:

Pencil, Rubber, Pencil Sharpener, 30cm Ruler, Protractor, Compass, Scientific Calculator (Casio FX-83GT PLUS), Colouring Pencils, Highlighter Pens, Glue Stick.

All boys have been issued with a textbook 'Essential Maths 9C' by Michael White & David Rayner

We also recommend each pupil has a copy of the ISEB 13+ Revision Guide (3<sup>rd</sup> Edition) by Steven Froggatt & David Hanson. ISBN:9781907047015