



The Mall School

Curriculum Guide

Mathematics – Spring Term

Year 8

Teachers:	Mr Martyn Miller
Lessons:	1 x 35min, 1 x 40min, 1 x 70min and 1 x 80
Homework:	2 x 40min (Tuesday - written & Wednesday - MyMaths)

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.
- Understand the order of precedence and effect of powers. Use index notation for integer powers and simple instances of the index laws.
- Extend mental methods of calculation strategies, working with decimals, fractions, percentages, factors, powers and roots.
- Distinguish the different roles played by letter symbols in equations, identities, formulae and functions.
- Compare 2 or more distributions and make inferences, using the shape of the distributions, the range of data and appropriate measures of average.
- Solve increasingly demanding problems; explore connections in mathematics across a range of contexts.
- Suggest extensions by asking 'What if...?' or 'Why?', conjecture and generalize; identify exceptional cases or counter-examples.

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:

- Percentages
- Trial & Improvement
- Compound Measures
- Inequalities
- Pythagoras' Theorem (Level 3 only)
- Ratio & Proportion
- Data Handling
- Simultaneous Equations (Level 3 only)

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 for Level 2 and the Higher GCSE book by David Rayner for Level 3

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



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