



The Mall School

Curriculum Guide

Mathematics – Autumn 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. This term the boys will consolidate all the topic areas in preparation for the mock Common Entrance papers in November. The CE 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.

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.
- 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 Autumn Term are as follows:

- Number
- Percentages
- Ratio & Proportion
- Algebra
- Circles
- Geometric reasoning
- Transformations

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 will work with a textbook, either 'Essential Maths 9i' by Michael White & David Rayner or 'GCSE Higher' by David Rayner

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