



## The Mall School

### Curriculum Guide

#### Mathematics – Summer Term

##### Year 8 - Scholars

Teachers:	Mr Martyn Miller
Lessons:	3 x 40min, 1 x 35min, 1 x 80min
Homework:	2 x 40min (Monday & Thursday)

##### 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 only have a few weeks of teaching before they sit their Scholarship examinations. In these weeks, the boys will practise typical scholarship questions from an array of different school papers. The scholarship examinations may differ depending on the school each boy is sitting for. Generally, most schools have one scholarship maths paper, this is usually a non-calculator paper and there is no mental arithmetic test.

##### Key Objectives:

- Apply the appropriate formulae for areas and circumferences of circles and parts of circle and how to manipulate these with other shapes.
- Understand similarity of triangles and other plane figures, and use this to make geometric inferences.
- Solving quadratic equations by factorisation and from applying the formula. Solve simultaneous equations by elimination, substitution and graphically.
- Use a set of bearings and scale to complete geometric drawings
- 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 Summer Term are as follows:

- Revision of Algebraic topics
- Bearings and Angles
- Circle Theorems

##### 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 ‘GCSE Mathematics – Higher’ by David Rayner