



The Mall School

Curriculum Guide

Mathematics – Summer Term

Year 7

Teachers:	Dr Alistair Miller & Mr Martyn Miller
Lessons:	2 x 40min, 2 x 35min, 1 x 60min
Homework:	2 x 40min (Monday & Thursday)

Introduction:

This term the boys will look at consolidating areas from the mock CE examination taken in February. These topics will be: algebra, introducing simultaneous equations and inequalities whilst also revisiting substitution and simplifying expressions; angles on parallel lines and both interior and exterior angles of regular polygons; straight line graphs and sequences. Every effort is made to help the children realize that the subject is a lot of fun where games, projects and practical activities encourage pupils to use imagination and initiative. Also, the boys selected for the scholarship set will commence the scholarship curriculum.

Key Objectives:

- Use the equivalence of fractions, decimals and percentages to compare proportions; calculate percentages and find the outcome of a given percentage increase or decrease.
- Begin to distinguish the different roles played by letter symbols in equations, formulae and functions; know the meanings of the words formula and function. Know that algebraic operations follow the same conventions and order as arithmetic operations; use index notation for small positive integer powers.
- Generate points in all 4 quadrants and plot the graphs of linear functions, where y is given explicitly in terms of x ; recognise that equations of the form $y=mx+c$ correspond to straight line graphs.
- Know that if the probability of an event occurring is p , then the probability of it not occurring is $1-p$; find and record all possible outcomes for single events and two successive events in a systematic way.
- Solve problems and explore pattern and symmetry in a range of contexts.
- Explain and justify inferences and reasoning.

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:

- Algebra – solving equations & simultaneous equations
- Inequalities
- Sequences
- Straight Line Graphs
- Algebra – Formulae & Expressions
- Probability
- Number – Significant Figures and Index laws
- Fractions, Decimals & Percentages

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 8c' by David Rayner & Michael White.