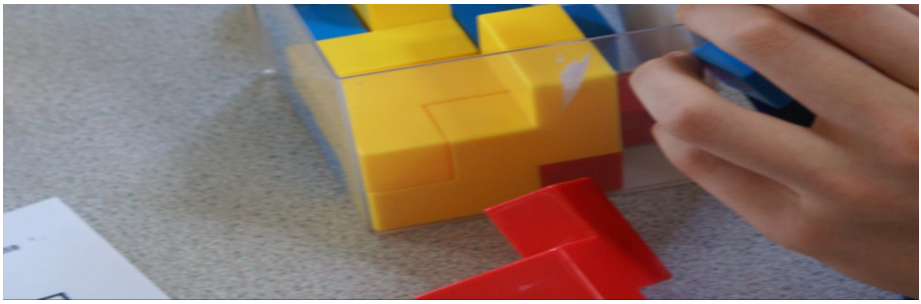
MATHEMATICS

William Brookes School

Mathematics

Parents' Guide 2010 - 2011

MATHEMATICS



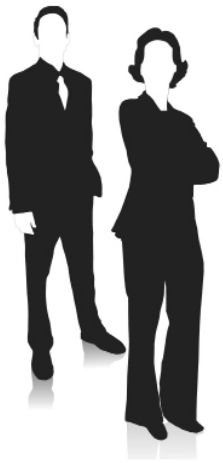
AIMS

Mathematics helps to develop abilities to reason and solve problems. It provides a way to think in abstract ways and make sense of data and patterns with many applications from simple uses of money and measures to being at the core of scientific understanding.

In an era of rapid technological development maths skills have become very important for many forms of employment, offering an analytical view. Many higher paid jobs require a grade C and above in GCSE Maths.

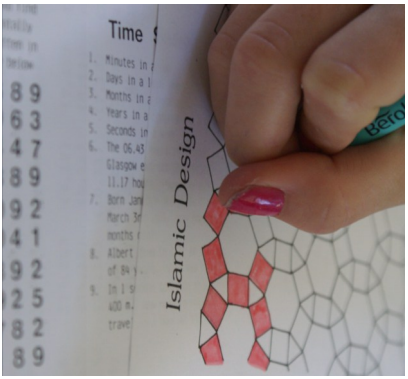
We hope that students will develop a confidence in the subject, enjoy solving problems that are original to them, see connections between topics and make sense of fairly complicated procedures.

We view the subject not just as a collection of skills but as a particular way of thinking. It is a global language; it's common ground developed over many years with influences from many cultures, with features that are still changing.



MATHS STAFF:

Mrs J Caldwell	Subject Leader
Mrs L Dowbiggin	Assistant Subject Leader
Mrs A Hughes	
Miss S Parry	
Mrs L Ravenscroft	*also SENCO*
Mr C Westcott	
Mrs C Jardine	
Miss H Wood	
Ms M Bain	Teaching Assistant



APPROACH

We are keen to encourage logical thinking, pattern recognition, justifying solutions and a swift use of skills (particularly in mental arithmetic).

Teachers are interested in students' explanations - maybe of how they worked something out - their theories and their methods of solving or tackling a problem - how they become 'unstuck' and reasons for choosing a particular method.

Teachers strive to engage students by providing clear explanations and examples, developing ideas with them and expecting feedback.

Our courses aim to:

- Build confidence in mathematics thinking;
- Offering interesting tasks to students;
- Capitalise on ICT;
- Provide opportunities for individual creative work;
- Revisit central topics regularly.

We find maths to be an interesting and creative subjects, which we believe students can succeed in and enjoy. We expect effort in homework and lessons

CURRICULUM

COURSES : KS3

Throughout the first three years students study the same topics, to differing levels of sophistication. Students are taught in (parallel) sets to facilitate success at all levels. We include ideas for extension (by depth) and topic developments are designed to build confidence and extend understanding.

Setting is reviewed regularly, following end of term assessments.
Our courses incorporate the national numeracy strategy objectives, with an additional emphasis on algebra.

COURSES : KS4

Much of the groundwork for GCSE is built in KS3. There are now two tiers of entry for GCSE: higher (C-A*), and foundation (G-C). Coursework has now finished in maths.

COURSES : ADVANCED LEVEL

Students have two teachers for the AQA Mathematics Y12 (AS course) and Y13 (A2 course) modules. Seeking extra help from others is encouraged and staff are very happy to provide this, most lunchtimes.

AS MATHS

There are two compulsory modules: Core Pure 1 and Core Pure 2 and another applied maths module chosen from Mechanics, Statistics and a relatively new area of practical applications called Discrete Maths.

A2 MATHS

Builds upon AS with a further two Core Pure Maths modules and another applied (Mechanics, Statistics or Discrete) module.

The choice about which Applied Maths modules are studied is made on the basis of the majority need and interest of the group.

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