



Otumoetai College

Mathematics Department

Year 9 Mathematics 2010 (ALP 2 and 3 A, B, C)

WHAT IS MATHEMATICS?

Mathematics is the study of numbers, shapes and patterns. You will learn to think logically. You will also come to understand some properties of numbers even when you do not know what the number is. You will learn to calculate, estimate and communicate your answers effectively.

Mathematics is a skill that is essential for working in the technological age. You must have an understanding of mathematics to be allowed to train for most interesting and challenging jobs.

At Otumoetai College all students in years 9 – 11 are required to study mathematics and nearly all students in year 12 also study mathematics.

Since 2007 the Mathematics Department has been involved in the Secondary Numeracy Project (SNP) which has the aim of improving the numeracy and algebraic skills of Year 9 and 10 students. This project is the final stage of the New Zealand Numeracy Project that many primary and intermediate students have been involved in.

Topics

The main headings under which you will study mathematics in Year 9 are:

1. Number 1 (Whole Numbers and Integers)
2. Geometry (Angles, Shapes and Transformations)
3. Number 2 (Place value, Decimals, Fractions, Percentages)
4. Algebra (Manipulation and solving simple linear equations)
5. Measurement
6. Probability
7. Statistics

Mathematics Competitions

You will be invited to enter the National Bank NZ mathematics competition and the Australian mathematics competition. There will be a small charge to cover entry fees for these competitions. All students in 9ALP A and B are expected to enter one of these competitions and all other students are encouraged to enter. There is also a quiz competition between the BOP schools in which we enter teams.

Homework

One of the difficulties of learning mathematics is that what you learn one day is needed to understand what comes next. It is very important to review what you have learnt. Also the only successful way to become good at solving problems is to practise this skill.

These aims are achieved by doing the homework that has been set by your teacher. You will probably find that the homework in mathematics is more frequent than in other subjects but is shorter in duration.

In 2011 Mathletics, a commercial web based computer package, will also be used for mathematics' homework. The cost will be \$30 for the year. For more information concerning Mathletics, please see the attached leaflet.

Other homework may include:

- Reading through the notes given each lesson
- Revising and consolidating skills
- Learning the spelling and meaning of words in mathematics
- Completing any unfinished work, e.g. diagrams, graphs or exercises
- Copying notes and catching up on exercises missed through illness or co-curricular activities
- Continuing work on any assignment that requires an extended amount of time
- Revising for an assessment

As you can see, there is no such thing as **“I haven't got any maths homework”**.

Homework Completed on a Computer

Any additional work completed on a computer should be backed up on a disc. Should a computer or printer malfunction the night before the work is to be handed in the disc will be evidence that it was completed on time. A hard copy will have to be produced at school that day from the disc.

Investigations

Certain topics throughout the year lend themselves to investigation work. You will be required to investigate certain relationships and/or rules of mathematics in order to understand better the reasons they exist. Your mathematics teacher will advise you of the investigations to be covered throughout the year. These will be used to assess Mathematical Processes.

Assessment

Tests will be completed at the end of each unit. Project work and investigations will also be undertaken to assess mathematical processes. There will be an end of year examination covering the entire year's work.

Moderation between Classes

Class assessments and examinations are common to all classes and have a common marking schedule. Inter-class moderation is achieved by check marking across the classes.

Authenticity of Student Work

All work must be the students own. If a staff member is in doubt the student will be asked to provide further evidence, orally or in writing, by explaining or solving a similar problem etc. An inadequate explanation will result in non achievement being awarded.

Appeals

If a student is not satisfied with a particular assessment result, the student must discuss it with the class teacher **before** the assessment leaves the room.

Students not satisfied with the discussions should approach Mr Dixon (who is in charge of the Junior Mathematics' programme) as soon as possible. The assessment will be handed to Mr Dixon by the classroom teacher.

Your teacher and the Mathematics Department have the responsibility to help you achieve to your full potential.

You have the responsibility to complete all set work to the best of your ability, to be in class on time, to meet all deadlines and to act and behave in a responsible manner so that you can achieve to your potential. Your behaviour in the class should not impact on the other people in the classroom.

Reports

The first report will be an interim report in Term 1, Week 9, followed by a Report Evening in Term 2, Week 2. The second report is issued in Term 2, Week 11, and a third one at the end of the year.

Good Luck for 2011

J. Ellwood
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