

*KEEP INSIDE THE FRONT COVER OF YOUR EXERCISE BOOK.  
Half an A4 envelope would make an ideal pocket.*

**YEAR 10 MATHEMATICS – 2010**  
**Cambridge Preparation Course**  
Christchurch Boys' High School

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|-------------------------------|---|
| <b>1. NUMBER</b>              | <b>Integers, Decimals, Fractions</b>  |
| <b>2. ALGEBRA</b>             | <b>Manipulating Expressions</b>   |
| <b>3. NUMBER</b>              | <b>Percentages, Standard Form, Rounding, Ratio, Rates</b>                                       |
| <b>Common Test 1</b>          |   |
| <b>4. ALGEBRA</b>             | <b>Expanding and Factorising</b>  |
| <b>5. ALGEBRA</b>             | <b>Linear Equations, Patterns, Quadratic Equations, Formulae</b>                                |
| <b>6. GEOMETRY</b>            | <b>Angles, triangles, parallel lines, polygons, circles</b>                                     |
| <b>7. PYTHAGORAS</b>          | <b>Pythagoras' Theorem</b>  |
| <b>8. TRIGONOMETRY</b>        | <b>Including vectors, navigation, 3D Trigonometry</b>   |
| <b>9. GRAPHS</b>              | <b>tLinear Graphs, Parabola Graphs</b>  |
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| <b>10. MEASUREMENT</b>        |   |
| <b>11. ALGEBRA</b>            | <b>formulae, inequations, solving quadratics</b>  |
| <b>12. NCEA EXAM REVISION</b> | <b>Revision for Algebra, Graphs and Right Angled Triangles</b>                                  |
| <b>13. GEOMETRY</b>           | <b>Transformations, Constructions, Isometric Drawing<br/>AS 90150 (1.4) Internal Assessment</b> |

## ASSESSMENT (Tests, Projects, Reports ..)

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|----------------------------|---------------------|--|
| • CLASS ASSESSMENT         | Throughout the year |  |
| • PAT                      | Term 1 Week 4       |  |
| • INTERIM REPORT           | mid-March           |  |
| • COMMON TEST              | Term 1 Week 9       | 1 hour test common to all classes                          |
| • EXAMINATION              | Term 4 Week 7       | 2 hour examination common to all followed by <b>REPORT</b> |
| • ACHIEVEMENT STANDARD 1.4 | Term 4              | NCEA Task worth 2 credits                                  |

## COMPETITIONS

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|--------------------------------|------------|
| • NATIONAL BANK JUNIOR MATHS   | April 1st  |
| • AUSTRALIAN MATHS COMPETITION | August 5th |
| • CANTAMATH                    | Mid August |
- Teams competition. Class projects.  
Individuals - posters, models, computing, written  
3rd, 4th students of all ability levels

**You will get marks that reflect your ability  
only if you establish regular, determined work habits.**

## BOOK PRESENTATION

- Work must be neat and complete
- Your exercise book must be a source of pride.
- Your teacher will set clear standards of work presentation - similar to below.

<p><b>3/6/2010</b>  <b>Example</b>  <b>Solving equations</b>          . . . etc.</p> <p><i>Notes and examples must be neat</i></p> <ul style="list-style-type: none"> <li>• in red or black ballpoint</li> <li>• copy carefully</li> </ul> <p><i>(alternatively your teacher may require a notebook)</i></p> <p><b>Ex.3/1-5, 6-11, Ex5/1-</b></p> <p><i>Exercises must be <u>neat</u> and <u>marked</u></i></p> <ul style="list-style-type: none"> <li>• pencil/ballpoint</li> <li>• working steps shown - not answers only!</li> <li>• diagrams</li> <li>• marking in red pen</li> <li>• marking</li> </ul> <p><i>Diagrams must be <u>neat</u></i></p> <ul style="list-style-type: none"> <li>• ruler</li> <li>• compass</li> <li>• rubber</li> <li>• labels</li> </ul>	<p><b>Homework</b>  <b>p356 complete patterns</b></p> <p><i>Homework must be</i></p> <ul style="list-style-type: none"> <li>• noted carefully</li> <li>• completed neatly</li> <li>• <u>marked</u> and where possible <u>corrected</u></li> </ul> <p><i>Equipment needed for <u>each period</u></i></p> <ul style="list-style-type: none"> <li>• pencil(s)</li> <li>• sharpener</li> <li>• red, blue/black ballpoint pen</li> <li>• ruler - plastic, cm. scale</li> <li>• scientific calculator</li> <li>• compass/pencil</li> <li>• protractor</li> <li>• scissors often useful</li> </ul>
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**Investigations** may require pages without margins.

**Daily Reviews** are used at the beginning of lessons by some teachers. These will normally be done in the back of your exercise book; wherever - neatness, working and clear marking are essential.

**Homework** - you can expect 20 - 30 minutes of homework to be set at the end of each mathematics period. This must be noted in both Exercise Book and Homework Diary. **Where you have difficulty with homework efforts at most questions must be evident**

**You will get far better marks - marks that reflect your ability  
 ... only if you ...  
 make a genuine attempt all your homework**

**HELP!!  
I'M STUCK!!  
I CAN'T DO MY HOMEWORK!!**

1. Have you read your teacher notes carefully?
2. Have you read the textbook notes carefully? Have you used the index? Have you worked carefully through the relevant textbook and exercise book examples?
3. Have you discussed the problems with your parents? Your mathematics is what they did at school and with just a little reading it is very likely they will be able to work with you.
4. Have you looked at the answer (at the back of the textbook)? Does it give you any clues that might be worth considering?
5. Have you tried some of the following problems? Often you will get one of these out - and in doing so see the method to the solution of the earlier problems.

**Still can't work it out! Don't panic!**

6. Neatly write out as much of the problem as you can and show this to your class teacher during the next mathematics period - this will let your teacher see that you are making an effort and will save time by clearly identifying the area of difficulty.
7. A parent signature in your book, or a note, when you are unable to complete homework would be a **very good** idea.

**Mr Mehrtens**

**Mr Thomas**