

Year 9 Mathematics - Pathway B

A study guide for Semester 1, 2011

NOTE: The examination will focus on work from Semester 1 this year but will include material from Mathematics you have covered previously (in Years 7 and 8)

Topic	Concepts	Chapters	Mathletics
1. Index Laws	<ul style="list-style-type: none"> * adding, subtracting, multiplying and dividing numerical and algebraic terms involving powers * the zero index 	6	Indices - all except negative and fractional indices
2. Scientific Notation	<ul style="list-style-type: none"> * Converting into and out of scientific notation * Significant figures 	1	Number – scientific notation
3. Area and Perimeter	<ul style="list-style-type: none"> * Area and perimeter of simple and composite shapes including triangles and rectangles, parallelograms, trapeziums, rhombuses, kites * Area and perimeter of circles, sectors, semi-circles and quadrants as well as composite shapes including these 	7	Area and Surface Area – Converting units of area, area of quadrilaterals, area of composite shapes
4. Algebra	<ul style="list-style-type: none"> * Collecting like terms, including fractions * Multiplication and division * Expanding brackets and simplifying * Factorising algebraic expressions 	3	Algebra - all
5. Earning and Spending Money	<ul style="list-style-type: none"> * Ways of earning money – wages, salaries, commission, piecework. Converting earnings to different time periods * Penalty rates – time-and –a-half, double time * Gross Pay, Net Pay, Deductions * Taxation, Gross Annual Income, Taxable Income, PAYE tax, Tax Payable, Tax refunds * Holiday loading * Budgeting * Best buy * Ways of paying and discounts * Percentage increase and decrease * Working for Profit 	9	Consumer Arithmetic – all except simple interest
6. Consolidation of Number	<ul style="list-style-type: none"> * Integers, fractions, decimals, percentages, simplifying ratios and rates 	1	Number - all

Tips for Studying

- Revisit topic tests and assignments
- Diagnostic Tests and Challenge Exercises are located at the end of each textbook chapter
- Revision Sheets
- Mathletics – but remember you must show working in an exam