



TERM 1 (8wks)	TERM 2 (11wks)	TERM 3 (10wks)	TERM 4 (8wks + 2wk HS + 1wk Activity)
<p><b>TERM 1</b></p> <p><b>Expanding (Ch 2)</b></p> <ul style="list-style-type: none"> <li>Expanding brackets <span style="float: right;">2 weeks</span></li> </ul> <p><b>Financial Maths (Ch. 1)</b></p> <ul style="list-style-type: none"> <li>Interest</li> <li>Compound interest – general formula</li> <li>Compound interest – further applications</li> <li>Comparing interest rates</li> <li>Depreciation</li> <li>Growth and decay <span style="float: right;">3 weeks</span></li> </ul> <p><b>Geometry (Ch. 8)</b></p> <ul style="list-style-type: none"> <li>Congruent and similar triangles</li> <li>Proving congruence and similarity</li> <li>Proofs of congruent triangles</li> <li>Proofs of similar triangles</li> <li>Geometric properties of special quadrilaterals <span style="float: right;">4 weeks</span></li> </ul>	<p><b>Linear Relationships (Ch. 4)</b></p> <ul style="list-style-type: none"> <li>Linear equations</li> <li>Gradient</li> <li>Sketching linear graphs</li> <li>Parallel and perpendicular lines</li> <li>Linear inequalities</li> <li>Simultaneous equations <span style="float: right;">4 weeks</span></li> </ul> <p><b>Trigonometry (Ch. 5)</b></p> <ul style="list-style-type: none"> <li>The trigonometric ratios</li> <li>Finding lengths</li> <li>Finding angles</li> <li>Angles of elevation and depression <span style="float: right;">3 weeks</span></li> </ul> <p><b>Semester 1 Exam and Revision</b></p> <p><b>Exam on Semester 1 topics plus Headstart Statistics; students sit as cohort in alphabetically assigned rooms.</b> <span style="float: right;">2 weeks</span></p> <p><b>Work Experience Week</b></p>	<p><b>SEMESTER 2</b></p> <p><b>Trigonometry Continued (Ch. 5)</b></p> <ul style="list-style-type: none"> <li>Bearings</li> <li>Mixed 2D problems <span style="float: right;">2 weeks</span></li> </ul> <p><b>Measurement (Ch. 3)</b></p> <ul style="list-style-type: none"> <li>Area</li> <li>Surface area of prisms and cylinders</li> <li>Volume of prisms and cylinders</li> <li>Surface area of tapered solids and spheres</li> <li>Volume of tapered solids and spheres</li> <li>Applications of volume <span style="float: right;">3 weeks</span></li> </ul> <p><b>Probability (Ch. 11)</b></p> <ul style="list-style-type: none"> <li>Probability review</li> <li>Venn diagrams and two-way tables</li> <li>Mutually exclusive events</li> <li>Probability tree diagrams</li> <li>Conditional statements</li> <li>Dependent and independent events <span style="float: right;">3 weeks</span></li> </ul> <p><b>Statistics (Ex. 7.1 – 7.6)</b></p> <ul style="list-style-type: none"> <li>7.1 Cumulative frequency curves</li> <li>7.2 Box plots</li> <li>7.3 Comparing data sets</li> <li>7.4 Scatterplots and data investigations</li> <li>7.5 Time-related data</li> <li>7.6 Statistics in the media</li> </ul>	<p><b>Factorizing (Ex. 2.2 - 2.7)</b></p> <ul style="list-style-type: none"> <li>Factorising using common factors</li> <li>Factorising quadratic expressions</li> <li>Factorising using special products</li> <li>Factorising by completing the square</li> <li>Algebraic fractions</li> <li>Rearranging formulas <span style="float: right;">2 weeks</span></li> </ul> <p><b>Non-Linear Relationships (Ch. 9)</b></p> <ul style="list-style-type: none"> <li>Identifying non-linear graphs and their equations</li> <li>Quadratic transformations</li> <li>Solving quadratic equations using the null factor law</li> <li>Solving quadratics by completing the square</li> <li>Sketching parabolas</li> <li>Sketching graphs of non-linear relationships <span style="float: right;">4 weeks</span></li> </ul> <p><b>Semester 2 Exam and Revision</b></p> <p><b>Exam on Semester 1 topics plus Headstart Statistics; students sit as cohort in alphabetically assigned rooms.</b> <span style="float: right;">2 weeks</span></p> <p><b>HEADSTART 2014</b></p> <p><b>Surds (Ch.12)</b></p> <ul style="list-style-type: none"> <li>Rational and irrational numbers</li> <li>Multiplying and dividing surds</li> <li>Adding and subtracting surds</li> <li>Surds and the distributive law <span style="float: right;">2 weeks</span></li> </ul>

## Pakenham Secondary College

## Pearson AC 10/10A Chapter Chart

Subject Area: AC Maths

Year Level: 10 and 10A



Chapter 1 Financial Mathematics	Chapter 2 Algebra	Chapter 3 Measurement	Chapter 4 Linear Relationships	Chapter 5 Trigonometry	Chapter 6 Advanced Trigonometry
<ul style="list-style-type: none"> <li>Interest</li> <li>Compound interest – general formula</li> <li>Compound interest – further applications</li> <li>Comparing interest rates</li> <li>Depreciation</li> <li>Growth and decay</li> </ul>	<ul style="list-style-type: none"> <li>Expanding brackets</li> <li>Factorising using common factors</li> <li>Factorising monic quadratic expressions</li> <li>Factorising using special products</li> <li>Factorising by completing the square</li> <li>Algebraic fractions</li> <li>Rearranging formulas</li> </ul>	<ul style="list-style-type: none"> <li>Area</li> <li>Surface area of prisms and cylinders</li> <li>Volume of prisms and cylinders</li> <li>Surface area of tapered solids and spheres</li> <li>Volume of tapered solids and spheres</li> <li>Applications of volume</li> </ul>	<ul style="list-style-type: none"> <li>Linear equations</li> <li>Gradient</li> <li>Sketching linear graphs</li> <li>Parallel and perpendicular lines</li> <li>Linear inequalities</li> <li>Simultaneous equations</li> </ul>	<ul style="list-style-type: none"> <li>The trigonometric ratios</li> <li>Finding lengths</li> <li>Finding angles</li> <li>Angles of elevation and depression</li> <li>Bearings</li> <li>Mixed 2D problems</li> </ul>	<ul style="list-style-type: none"> <li>Solving 3D problems</li> <li>The unit circle</li> <li>Solving trigonometric equations</li> <li>The sine and cosine rules</li> <li>Applications of the sine and cosine rules</li> <li>Area of triangle using trigonometry</li> </ul>
Chapter 7 Statistics	Chapter 8 Geometry	Chapter 9 Non - Linear Relationships	Chapter 10 Polynomials	Chapter 11 Probability	Chapter 12 Surds & logarithms
<ul style="list-style-type: none"> <li>Cumulative frequency curves</li> <li>Box plots</li> <li>Comparing data sets</li> <li>Scatterplots and data investigations</li> <li>Time-related data</li> <li>Statistics in the media</li> <li>Standard deviation</li> <li>Lines of best fit</li> </ul>	<ul style="list-style-type: none"> <li>Congruent and similar triangles</li> <li>Proving congruence and similarity</li> <li>Proofs of congruent triangles</li> <li>Proofs of similar triangles</li> <li>Geometric properties of special quadrilaterals</li> <li>Angles in circles</li> </ul>	<ul style="list-style-type: none"> <li>Identifying non-linear graphs and their equations</li> <li>Quadratic transformations</li> <li>Solving quadratic equations using the null factor law</li> <li>Solving quadratics by completing the square</li> <li>Sketching parabolas</li> <li>Sketching graphs of</li> </ul>	<ul style="list-style-type: none"> <li>Equations of the form <math>y = ax^n</math></li> <li>Transformations of <math>y = ax^n</math></li> <li>Polynomials</li> <li>Factorising non-monic quadratic trinomials</li> <li>Solutions of non-monic quadratics</li> <li>Remainder and factor theorems</li> <li>Sketching</li> </ul>	<ul style="list-style-type: none"> <li>Probability review</li> <li>Venn diagrams and two-way tables</li> <li>Mutually exclusive events</li> <li>Probability tree diagrams</li> <li>Conditional statements</li> <li>Dependent and independent events</li> </ul>	<ul style="list-style-type: none"> <li>Rational and irrational numbers</li> <li>Multiplying and dividing surds</li> <li>Adding and subtracting surds</li> <li>Surds and the distributive law</li> <li>Rationalising the denominator</li> <li>Summary of Index Laws</li> </ul>

	<ul style="list-style-type: none"><li>• Chords of circles</li></ul>	non-linear relationships	polynomials		<ul style="list-style-type: none"><li>• Fractional indices</li><li>• Logarithms</li><li>• Laws of logarithms</li></ul>
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