


Year 10 – Australian Curriculum: Mathematics

Identify curriculum	Achievement standard	<p>By the end of Year 10, students recognise the connection between simple and compound interest. They solve problems involving linear equations and inequalities. They make the connections between algebraic and graphical representations of relations. Students solve surface area and volume problems relating to composite solids. They recognise the relationships between parallel and perpendicular lines. Students apply deductive reasoning to proofs and numerical exercises involving plane shapes. They compare data sets by referring to the shapes of the various data displays. They describe bivariate data where the independent variable is time. Students describe statistical relationships between two continuous variables. They evaluate statistical reports.</p> <p>Students expand binomial expressions and factorise monic quadratic expressions. They find unknown values after substitution into formulas. They perform the four operations with simple algebraic fractions. Students solve simple quadratic equations and pairs of simultaneous equations. They use triangle and angle properties to prove congruence and similarity. Students use trigonometry to calculate unknown angles in right-angled triangles. Students list outcomes for multi-step chance experiments and assign probabilities for these experiments. They calculate quartiles and interquartile ranges.</p>																																																																
		Term overview	Term 1	Term 2	Term 3	Term 4	Term 1	Term 2	Term 3	Term 4																																																								
Teaching and learning	Term overview	NUMBER AND ALGEBRA <ul style="list-style-type: none"> Financial mathematics - connections between Simple and Compound Interest Expand binomial expressions and factorise monic quadratic expressions. Algebraic and graphical representations of relations.. (Sketch graphs of parabolas, circles and exponentials). Substitution using formulas - finding unknown values. Four operations with algebraic fractions 	MEASUREMENT AND GEOMETRY <ul style="list-style-type: none"> Trigonometry to find angles in right-angles triangles Congruence and similarity proofs using triangle and angle properties Deductive reasoning to proofs and exercises involving plane shapes 	NUMBER AND ALGEBRA <ul style="list-style-type: none"> Linear equations and inequalities to solve problems Coordinate geometry - relationships between parallel and perpendicular lines (in class) Solving simple quadratic and simultaneous equations 	STATISTICS <ul style="list-style-type: none"> Compare data sets in various data displays Describe bivariate data using time as the independent variable Describe relationships between two continuous variables Evaluate statistical reports 	MEASUREMENT AND GEOMETRY <ul style="list-style-type: none"> Surface area and volume problems relating to composite solids. 	PROBABILITY <ul style="list-style-type: none"> List outcomes and assign probabilities to multi-step chance experiments Calculate quartiles and interquartile ranges 																																																											
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