

Year Level Plan		Year 10		Semester 1		Standard Mathematics	
Term 1				Term 2			
Unit 1		Unit 2		Unit 3		Unit 4	
<p>In Unit 1 students will be working mathematically within the following content and explore how the content is explored or developed.</p> <ul style="list-style-type: none"> • understanding includes applying the four operations to algebraic fractions, finding unknowns in formulas after substitution, • fluency includes using a range of strategies to solve equations • problem-solving includes finding unknown lengths and angles using applications of trigonometry • reasoning 		<p>In Unit 2 students will be working mathematically within the following content and explore how the content is explored or developed.</p> <ul style="list-style-type: none"> • understanding includes applying the four operations to algebraic fractions and determining probabilities of two- and three-step experiments • fluency • problem-solving includes investigating independence of events • reasoning includes interpreting and evaluating media statements 		<p>In Unit 3 students will be working mathematically within the following content and explore how the content is explored or developed.</p> <ul style="list-style-type: none"> • understanding includes applying the four operations to algebraic fractions, finding unknowns in formulas after substitution, making the connection between equations of relations and their graphs, • fluency includes expanding algebraic expressions, using a range of strategies to solve equations • problem-solving includes using algebraic and graphical techniques to find solutions to simultaneous equations • reasoning includes interpreting and comparing data sets 		<p>In Unit 4 students will be working mathematically within the following content and explore how the content is explored or developed.</p> <ul style="list-style-type: none"> • understanding includes applying the four operations to algebraic fractions, finding unknowns in formulas after substitution, • fluency includes factorising and expanding algebraic expressions • problem-solving • reasoning includes interpreting and comparing data sets. 	
Assessment Tasks							
<ul style="list-style-type: none"> • Solve right-angled triangle problems including those involving direction and angles of elevation and depression • Substitute values into formulas to determine an unknown 		<p>Summative Assessment Task 1: 60 - 70 min Test at the end of Unit 1 and 2</p> <p>Approximately Week 9 Term 1</p> <p>Semester Weighting: 50%</p> <ul style="list-style-type: none"> • Describe the results of two- and three-step chance experiments, both with and without replacements, assign probabilities to outcomes and determine probabilities of events. Investigate the concept of independence • Use the language of 'if ...then', 'given', 'of', 'knowing that' to investigate conditional statements and identify common mistakes in interpreting such language 		<ul style="list-style-type: none"> • Solve problems involving linear equations, including those derived from formulas • Solve linear equations involving simple algebraic fractions • Solve linear simultaneous equations, using algebraic and graphical techniques including using digital technology • Solve problems involving parallel and perpendicular lines • Substitute values into formulas to determine an unknown • Apply the four operations to simple algebraic fractions with numerical denominators 		<p>Summative Assessment Task 2: 60 - 70 min Test at the end of Unit 3 and 4</p> <p>Approximately Week 9 Term 2</p> <p>Semester Weighting: 50%</p> <ul style="list-style-type: none"> • Expand binomial products and factorise monic quadratic expressions using a variety of strategies • Factorise algebraic expressions by taking out a common algebraic factor • Substitute values into formulas to determine an unknown • Solve simple quadratic equations using a range of strategies 	

Year Level Plan		Year 10		Semester 2		Standard Mathematics	
		Term 3				Term 4	
		Unit 5	Unit 6	Unit 7			Unit 8
		<p>In Unit 5 students will be working mathematically within the following content and explore how the content is explored or developed.</p> <ul style="list-style-type: none"> understanding includes finding unknowns in formulas after substitution, making the connection between equations of relations and their graphs fluency includes using a range of strategies to solve equations and using calculations to investigate the shape of data sets problem-solving reasoning includes interpreting and evaluating media statements and interpreting and comparing data sets. 	<p>In Unit 6 students will be working mathematically within the following content and explore how the content is explored or developed.</p> <ul style="list-style-type: none"> understanding includes finding unknowns in formulas after substitution, fluency problem-solving reasoning includes formulating geometric proofs involving congruence and similarity 	<p>In Unit 7 students will be working mathematically within the following content and explore how the content is explored or developed.</p> <ul style="list-style-type: none"> understanding includes applying the four operations to algebraic fractions, finding unknowns in formulas after substitution, making the connection between equations of relations and their graphs, comparing simple and compound interest in financial contexts fluency includes using a range of strategies to solve equations and using calculations to investigate the shape of data sets problem-solving reasoning includes interpreting and evaluating media statements and interpreting and comparing data sets. 			<p>In Unit 8 students will be working mathematically within the following content and explore how the content is explored or developed.</p> <ul style="list-style-type: none"> understanding includes finding unknowns in formulas after substitution, making the connection between equations of relations and their graphs, fluency includes factorising and expanding algebraic expressions, using a range of strategies to solve equations problem-solving includes using algebraic and graphical techniques to find solutions to simultaneous equations and inequalities and investigating independence of events reasoning includes comparing data sets.
Assessment Tasks							
		<p>Summative Assessment Task 3: 4 Lesson in Class Extended Problem Solving Activity. Each Lesson students are to complete the activity in that given lesson. Unit 5</p> <p>Approximately Week 2 and 3 Term 3</p> <p>No take home components are part of the conditions.</p> <p>Semester Weighting: $33\frac{1}{3}\%$</p> <ul style="list-style-type: none"> Determine quartiles and interquartile range Construct and interpret box plots and use them to compare data sets Compare shapes of box plots to corresponding histograms and dot plots Evaluate statistical reports in the media and other places by linking claims to displays, statistics and representative data Investigate and describe bivariate numerical data where the independent variable is time Use scatter plots to investigate and comment on relationships between two continuous variables 	<p>Summative Assessment Task 3: 60 - 70 min Test at the end of Unit 6</p> <p>Approximately Week 10 Term 3</p> <p>Semester Weighting: $33\frac{1}{3}\%$</p> <ul style="list-style-type: none"> Solve Problems involving surface area and volume for a range of prisms, cylinders and composite solids Applying logical reasoning, including the use of congruence and similarity, to proofs and numerical exercises involving plane shapes Formulate proofs involving congruent triangles and angle properties Substitute values into formulas to determine an unknown 			<p>Summative Assessment Task 5: 60 - 70 min Test at the end of Unit 7 and 8</p> <p>Approximately Week 10 Term 4</p> <p>Semester Weighting: $33\frac{1}{3}\%$</p> <ul style="list-style-type: none"> Explore the connection between algebraic and graphical representations of relations such as simple quadratics, circles and exponentials using digital technology as appropriate Solve linear inequalities and graph their solutions on a number line Simplify algebraic products and quotients using index laws 	