Turramurra High School - 2020-Year 9 5.3 - Scope and Sequence

Term 1 - Tuesday, 28th January to Thursday, 9th April

Week 1				Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	
Public Holiday	S. D. D.	Years 7, 11 ,12 Whole School	Algebraic Techniques and Equations 1 (5.3)	Swimming Carnival	Algebraic Techniques and Equations 1 (5.3)			Measurement 1 (5.2)			Geometry 1		Geometry 2	Good Friday
				MA5.2 1WM, MA5.2 3WM, MA5.2 6NA, MA5.2 8NA, MA5.3 1WM, MA5.3 5NA, MA5.3 7NA				MA5.1 1WM, MA5.1 2WM, MA5.2 1WM, MA5.2 2WM, MA5.1 8MG, MA5.2 11MG, MA5.2 12MG, MA5.2 8NA			MA5.2 1WM, MA5.2 2WM,		MA5.1 3WM, MA5.1 11MG	
				• Apply the four operations to the the simplification of algebraic expressions including those involving fractions and expansions with numerical denominators • Perform binomial expansions • Solve linear, basic quadratic and cubic equations and linear inequations • Solve simple literal equations				• Consolidate and build on the concepts from stage 4 of Pythagoras' Theorem, perimeter, area and volume. • Calculate and solves problems involving the area of composite figures and the surface area of right prisms and cylinders. • Solve problems involving the volume of a range of prisms, cylinders and composite solids. • Use significant figures as another method of rounding. • Solve equations arising from substitution into formulae and rearranges literal equations.			●Establish results for interior and exterior angles of polygons. ●Apply logic and reasoning to solve simple numerical problems involving plane shapes		• Use the enlargement transformation to explain similarity and develop the conditions for triangles to be similar.	

Term 2 - Monday, 27th April to Friday, 3rd July

Week 1			Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
S. D. D.	Geometry 2	Athletics Carnival	Indices and Scientific Notation			Semester 1 Assessment	Queens Birthday	Surds		Trigonometry	
	MA5.1 3WM, MA5.1 11MG		MA5.1 1WM, MA5.1 2WM, MA5.1 3WM, MA5.1 5NA, MA5.1 9MG, MA5.2 1WM, MA5.2 3WM, MA5.2 7NA					MA5.3 1WM, MA5.3 2WM, MA5.3 3WM, MA5.3 6NA		MA5.1 1WM, MA5.1 2WM, MA5.1 3WM, MA5.1 10MG, MA5.2 1WM, MA5.2 2WM, MA5.2 13MG	
	• Solve problems using ratio and scale factors in similar figures.		• Apply index laws to numerical expressions with integer indices. • Simplify algebraic products and quotients using index laws. • Express numbers in scientific notation					• Define rational and irrational numbers. • Perform basic operations with surds		• Use similarity to investigate the constancy of the sine, cosine and tangent ratios for a given angle in right-angled triangles. • Apply trigonometry to solve right-angled triangle problems	
				NAPLAN							

Term 3 - Monday, 20th July to Friday, 25th September

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
	Linear Relationships			Rates	Simultaneous Equations		Quadratic Factorisation and Algebraic Fractions			Single Variable Data Analysis
	MA5.1 1WM, MA5.1 3WM, MA5.1 6NA, MA5.2 1WM, MA5.2 3WM, MA5.2 9NA			MA5.2 1WM, MA5.2 2WM, MA5.2 5NA	MA5.2 1WM, MA5.2 2WM,		MA5.3 1WM, MA5.3 5NA			
S.D.D.	• Find the distance, midpoint and gradient between two points on the Cartesian plane using a range of strategies. • Sketch linear graphs using the coordinates of two points. • Interpret and graph linear relationships using the gradient-intercept form of the equation of a straight line. • Solve problems involving parallel and perpendicular lines.			• Recognise direct and indirect proportion. • Solve problems involving direct proportion. • Explore the relationship between graphs and equations corresponding to simple rate problems.	• Solve linear simultaneous equations, using algebraic and graphical methods, including using digital technologies.		• Factorise monic and non-monic quadratic expressions. • Simplify algebraic fractions, where at least one binomial factorisation needs to be performed. • Multiply and divide algebraic fractions which involve multiple factorisations. • Add and subtract algebraic fractions where a common denominator needs to be found.			See notes in Week 1 of Term 4
			1							

Term 4 - Monday, 12th October to Wednesday, 16th December

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	
Single Variable Data Analysis		Revision	Semester 2 Assessment	Financial Maths 1		Urban Challenge	Congruency and Other Proofs			School Holidays (SDDs)
MA5.1 1WM, MA5.1 2WM, MA5.1 3WM, MA5.1 12SP, MA5.2 1WM, MA5.2 3WM, MA5.2 15SP, MA5.3 1WM, MA5.3 2WM, MA5.3 3WM, MA5.3 18SP				MA5.1 1WM, MA5.1 2WM, MA5.1 3WM, MA5.1 4NA			MA5.2 1WM, MA5.2 2WM, MA5.2 3WM, MA5.2 14MG, MA5.3 1WM, MA5.3 2WM, MA5.3 3WM, MA5.3 16MG			
• Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread. • 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. • Investigate reports of surveys in digital media and elsewhere for information on how data was obtained to estimate population means and medians.				• Consolidate and extend the concepts involved in applying percentages. • Solve problems involving earning money. • Solve problems involving simple interest. • Solve equations arising from substation and rearranges literal equations.			• Apply logical reasoning to more complex numerical problems involving plane shapes. • Construct proofs involving congruent triangles. • Apply logical reasoning to proofs involving plane shapes. • Prove and apply theorems and properties related to triangles. • Extension: Circle Geometry (prove some of the properties of circles using congruency proofs).			