

Turramurra High School - 2023-Year 9 5.3/5.2+ - Scope and Sequence

Term 1 2023

		Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		
		30/1	31/1	6/2	13/2	20/2	27/2	6/3	13/3	20/3	27/3	4/3	
Stage 5.3/5.2+	SDD 2	Year 7, 11, 12 only	Topic 1:	Topic 1: Algebraic Techniques and Equations 1 (5.3)			Topic 2: Measurement 1 (5.2)			Topic 3: Geometry 1			
				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,			
			Swimming Carnival	<ul style="list-style-type: none"> Apply the four operations to the simplification of algebraic expressions including those involving fractions and expansions with numerical denominators and simple algebraic denominators Perform binomial expansions Solve linear, basic quadratic and cubic equations and linear inequations Solve simple literal equations 			<ul style="list-style-type: none"> 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. 			Review formal congruency proofs Establish results for interior and exterior angles of polygons. Apply logic and reasoning to solve simple numerical problems involving plane shapes			
Stage 5.2/5.1	SDD 2	Year 7, 11, 12 only	Topic 1:	Topic 1: Indices & Algebraic Techniques	Topic 2: Equations 1		Topic 3: Measurement 1 Perimeter & Area of composite shapes		Topic 4: Measurement Surface Area		Topic 5: Polygons		
				MA5.2 1WM, MA5.2 2WM, MA5.2 3WM, MA5.1 5NA, MA5.2 8NA	MA5.2-1WM, MA5.2-8NA		MA5.1 1WM, MA5.1 2WM, MA5.1 8MG		MA5.1 1WM, MA5.1 2WM, MA5.1 8MG		MA5.2 1WM, MA5.2 2WM, MA5.2 3WM, MA5.2 1 14MG		
			Swimming Carnival	<ul style="list-style-type: none"> Apply the addition, subtraction, multiplication, and division operations to algebraic expressions. including the removal of brackets Fully factorise algebraic expressions. Solve linear algebraic equations. Extend and apply the index laws to variables, using positive-integer indices and the zero index. Simplify algebraic products and quotients using index laws. 		<ul style="list-style-type: none"> Solve linear algebraic equations, involving 1 step, 2 step and equations with grouping symbols. 		<ul style="list-style-type: none"> 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. Use significant figures as another method of rounding. 		<ul style="list-style-type: none"> Review of nets of solids. Review types of solids in particular, what a prism is opposed to a pyramid. Solve problems involving the surface areas of right prisms. 		Student can use logic and reasoning to solve numerical problems involving plane shapes. <ul style="list-style-type: none"> Establish results for interior and exterior angles of polygons Apply logic and reasoning to solve simple numerical problems involving plane shapes 	
								NAPLAN					
												GOOD FRIDAY	

Term 3 2023

		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	
		17/7 18/7	24/7	31/7	7/8	14/8	21/8	28/8	4/9	11/9	18/9	
S. D. D.	Stage 5.3/5.2+	Topic 7: Trigonometry	Topic 8: Linear Relationships			Topic 9: Simultaneous Equations		Topic 10: Rates		Topic 11: Quadratic Factorisation and Algebraic Fractions		
		MA5.1 1WM, MA5.1 2WM, MA5.1 3WM	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 3WM, MA5.2 8NA		MA5.2 1WM, MA5.2 2WM, MA5.2 5NA		MA5.3 1WM, MA5.3 5NA		
		* Apply trigonometry to solve right-angled triangle problems * Solve right-angled triangle problems, including those involving direction and angles of elevation and depression	* Find the midpoint and gradient of a line segment (interval) on the Cartesian plane using a range of strategies, including graphing software * Find the distance between two points located on the Cartesian plane using a range of strategies, including graphing software * Sketch linear graphs using the coordinates of two points * Solve problems involving parallel lines * Interpret and graph linear relationships using the gradient-intercept form of the equation of a straight line * Solve problems involving parallel and perpendicular lines			Solve linear simultaneous equations, using algebraic and graphical methods, including using digital technologies.		Recognise direct and indirect proportion. Solve problems involving direct proportion. Explore the relationship between graphs and equations corresponding to simple rate problems.		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.		
S. D. D.	Stage 5.2/5.1	Topic 9: Linear Relationships	Topic 10: Rates/Ratios & Direct Proportions			Topic 11: Algebraic Fractions		Topic 12: Single Variable Data Analysis		Topic 13: Single Variable Data Analysis 2		
		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 1WM, MA5.2 3WM, MA5.2 6NA		MA4-20SP		MA5.1-1WM, MA5.1-2WM, MA5.1-3WM, MA5.1-12SP, MA5.2-1WM, MA5.2-3WM, MA5.2-15SP		
		Find the midpoint and gradient of a line segment (interval) on the Cartesian plane using a range of strategies, including graphing software Find the distance between two points located on the Cartesian plane using a range of strategies, including graphing software Sketch linear graphs using the coordinates of two points Solve problems involving parallel lines Interpret and graph linear relationships using the gradient-intercept form of the equation of a straight line Solve problems involving parallel and perpendicular lines	Review rates concepts and travel graphs Students can recognise direct and indirect proportion, and solve problems involving direct proportion. • Solve problems involving direct proportion; explore the relationship between graphs and equations corresponding to simple rate problems			Students can simplify algebraic expressions involving fractions. • Apply the four operations to simple algebraic fractions with numerical denominators • Apply the four operations to algebraic fractions with pronumerals in the denominator		• Review the types of data • Calculate mean, median, mode and range for sets of data and interpret these statistics in the context of data		• Students can use quartiles and box plots to compare sets of data, and evaluates sources of data. • 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 collected, analysed, presented, manipulated, displayed		
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Term 4 2023

Term 4 2023										
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	
9/10	16/10	23/10	30/10	6/11	13/11	20/11	27/11	4/12	11/12	
Topic 12: Single Variable Data Analysis 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		Topic 13: Financial Maths MA5.1 1WM, MA5.1 2WM, MA5.1 3WM, MA5.1 4NA		Yearly Assessment	Topic 13: Financial Maths MA5.1 1WM, MA5.1 2WM, MA5.1 3WM, MA5.1 4NA		Topic 13: Financial Maths MA5.1 1WM, MA5.1 2WM, MA5.1 3WM, MA5.1 4NA		Topic 14: Congruency and Other Proofs MA5.2 1WM, MA5.2 2WM, MA5.2 3WM, MA5.2 14MG, MA5.3 1WM, MA5.3 2WM, MA5.3 3WM, MA5.3 16MG	
Review Year 8 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.		Urban Challenge	Consolidate and extend the concepts involved in applying percentages. Solve problems involving earning money. Solve problems involving simple interest.		Solve problems involving compound interest.		Apply logical reasoning to more complex numerical problems involving plane shapes. Construct proofs involving congruent triangles. Prove and apply theorems and properties related to triangles. Extension: Circle Geometry (prove some of the properties of circles using congruency proofs).	
Topic 13 cont'd: Single Variable Data Analysis 2 MA5.1-1WM, MA5.1-2WM, MA5.1-3WM, MA5.		Topic 14: Percentages MA4-5NA, MA4-1WM,		Topic 15: Financial Maths MA5.1-1WM, MA5.1-2WM, MA5.1-3WM, MA5.1-4NA		Topic 16: Equations MA5.2 1WM, MA5.2 3WM,		Topic 17: Numbers of any magnitude MA5.1-1WM, MA5.1-2WM, MA5.1-3WM, MA5.		
<ul style="list-style-type: none"> Students can use quartiles and box plots to compare sets of data, and evaluates sources of data. 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 		<ul style="list-style-type: none"> Find percentages of quantities and express one quantity as a percentage of another, with and without the use of digital technologies. Solve problems involving the use of percentages, including percentage increases and decreases, with and without the use of digital technologies 		Urban Challenge	Students can solve financial mathematics problems involving earning money. <ul style="list-style-type: none"> Solve problems involving earning money. Solve problems involving simple interest. Solve equations arising from substitution into formulae. 		Solves algebraic equations involving fractions.		<ul style="list-style-type: none"> Investigate very small and very large time scales and intervals Describe limits of accuracy 	

Stage 5.3/5.2+

Stage 5.2/5.1

If have time, start on Year 10 Algebraic Techniques