Turramurra High School - 2020 - Year 10 5.2 - Scope and Sequence

Term 1

Week 1			Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
S.D.D.	Years 7, 11, 12	Whole School	Trigonometry	Algebraic Techniques and Equations (8 Lessons)			Measurement and Equations (10 lessons)				Financial Maths (12 Lessons)	Good Friday
			MA5.2 1WM, MA5.2 2WM, MA5.2 13MG	MA5.2 1WM, MA5.2 2WM, MA5.2 3WM, MA5.2 8NA			MA5.2 1WM, MA5.2 2WM, MA5.2 11MG, MA5.2 12MG				MA5.1 1WM, MA5.1 2WM, MA5.1 3WM, MA5.1 5NA, MA5.2 1WM, MA5.2 2WM, MA5.2 4NA	

Trig (Week 1–2):
● Review trigonometry basics (finding an unknown side and angle) and build student skills in doing trigonometry in degrees and minutes.

Swimming Carnival (Week 2)

Trigonometry (Week 2):
● Introduce students to reading and interpreting bearings (both compass and three-figure) and solving trigonometric problems involving bearings.

● Introduce students to two triangle problems.

Algebraic Techniques and Equations (Weeks 3–5):
● Review simplifying algebraic expressions (including a review of basic index laws) and solving equations.
● Apply the four operations to algebraic fractions with numerical denominators and extend to pronumeral denominators.
● Solve linear equations involving simple algebraic fractions.

Measurement and Equations (Weeks 6–9):
● Solve problems involving surface area for a range of prisms, cylinders and composite solids.

● Solve problems involving the volumes of a range of prisms, cylinders and composite solids.

● Solve equations arising from the substitution into area, surface area and volume formulae.

Financial Maths (Week 10):
● Investigates ways of paying for an item and solves simple interest problems that involve buying on terms

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Term 2

Week 1		Week 2	Week 3	Week 4	Week 5	Week 6		Week 7	Week 8	Week 9	Week 10
S.D.D.	Financial Maths (Continued)	Athletics Carnival	Financial Maths (Continued)	Semester 1 Assessment	Financial Maths (Continued)	Data Analysis (10 lessons)	Queens Birthday	Data Analysis (Cont)			Consolidation Week
								MA5.2 1WM, MA5.2 3WM, MA5.2 15SP, MA5.2 16SP			

Financial Maths (Continued) (Week 1):
● Connects compound interest to repeated applications of simple interest.and establishes then uses the formula for compound interest.

Financial Maths (Continued) (Week 3):
● Solves problems involving compound interest and depreciation.

Financial Maths (Continued) (Week 5):
● Solves equations arising from substitution into financial maths formulae.

Data Analysis (Week 6):
● Review constructing and interpreting box plots and using them to compare data sets.

● Investigate and describe bivariate numerical data where the independent variable is time.

Data Analysis (Cont) (Weeks 7–9):
● Use scatter plots to investigate and comment on relationships between two numerical variables. Use scatter plots to investigate and comment on relationships between two numerical variables.

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Term 3

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
S. D. D.	Linear and Non-Linear Relationships (11 lessons)					Simultaneous Equations (8 lessons)			Probability (8 Lessons)	
	MA5.2 1WM, MA5.2 3WM, MA5.2 9NA, MA5.2 10NA					MA5.2 1WM, MA5.2 2WM, MA5.2 3WM, MA5.2 8NA			MA5.2 1WM, MA5.2 2WM, MA5.2 3WM, MA5.1 13SP, MA5.2 17SP	
	● Review and build on skills learnt in Year 9 to interpret and graph linear relationships. ● Introduce students to perpendicular lines and solve problems involving parallel and perpendicular lines. ● Graph and simple non-linear relationships (parabola, exponential and circle) ● Connect algebraic and graphical representations of simple non-linear relationships.					● Uses graphical and at least one analytical technique to solve linear simultaneous equations.			● Calculates relative frequencies from given or collected data to estimate probabilities of events involving "and" or "or" ● Interpret and use venn diagrams and two way tables. ● List all outcomes for two-step experiments, with and without replacement, using tree diagrams or arrays; assign probabilities to outcomes and determine probabilities for events. ● Describe the results of two- and three-step chance experiments, with and without replacement, assign probabilities to outcomes, and determines probabilities of events; investigate the concept of independence. ● Use the language of 'if .... then', 'given', 'of', 'knowing that' to investigate conditional statements and to identify common mistakes in interpreting such language	
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Term 4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	
	Probability (Continued)	Semester 2 Consolidation	Semester 2 Assessment	Quadratics Equations (8 Lessons)			Work Experience	Properties of geometrical figures (5 Lessons)			School Holidays (SDDs)
				MA5.2 1WM, MA5.2 2WM, MA5.2 3WM, MA5.2 8NA				MA5.2 1WM, MA5.2 2WM, MA5.2 3WM, MA5.2 14MG			
				● Solve simple quadratic equations using a range of strategies (ACMNA241) ● Solve monic equations.				● Uses enlargement transformation to explain similarity and to develop the conditions for triangles to be similar (ACMMG220)			