Turramurra High School - 2022 - Year 8 - Scope and Sequence

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	Week 2		Week 3	Week 4	Week 5		Week 6	Week 7	Week 8	Week 9	Week 10		Week 11	
30/1	31/1		2/6	13/2	20/2	27/2		3/6	13/3	20/3	27/3		4/3	
SDD	Immersion week activities	SWIMMING CARNIVAL	**Topic 1: Rational vs Irrational Numbers**				Athletics Carnival	**Topic 2: Right-Angled Triangles (Pythagoras)**		**Topic 3: Algebraic Techniques**		Term 1 Project due	**Topic 3: Algebraic Techniques**	GOOD FRIDAY

Topic 1: Rational vs Irrational Numbers

MA4 5NA, MA4 9NA, MA4 12MG, MA4 1WM, MA4 2WM, MA4 3WM

Investigate terminating and recurring decimals

Connect fractions, decimals and percentages and carry out simple conversions

Investigate and use square roots of perfect square numbers

Investigate the concept of irrational numbers, including pi

Topic 2: Right-Angled Triangles (Pythagoras)

MA4 16MG, MA4 1WM, MA4 2WM

Investigate Pythagoras' theorem and its application to solving simple problems involving right-angled triangles.

Investigate the concept of irrational numbers.

Topic 3: Algebraic Techniques

MA4 8NA, MA4 1WM, MA4 2WM, MA4 3WM

Simplify algebraic expressions involving the four operations

Extend and apply the distributive law to the expansion of algebraic expressions

Factorise algebraic expressions by identifying numerical factors

Factorise algebraic expressions by identifying algebraic factors

Apply the distributive law to the expansion of algebraic expressions, including binomials, and collect like terms where appropriate

Apply the four operations to simple algebraic fractions with numerical denominators

Topic 3: Algebraic Techniques

MA4 8NA, MA4 1WM, MA4 2WM, MA4 3WM

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Term 2 2023

			Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		Week 8	Week 9		Week 10
24/4	25/4	26/4		1/5	8/5	15/5	22/5	29/5	5/6		12/6	13/6	19/6		26/6
SDD	Anzac Day		**Topic 4: Percentages and Financial Mathematics**			**Topic 5: Equations**			**Topic 6: Ratio and Rates**	Queens Birthday	**Topic 6: Ratio and Rates**		Term 2 Assessment	**Topic 6: Ratio and Rates**

Topic 4: Percentages and Financial Mathematics

MA4 5NA, MA4 6NA, MA4 1WM, MA4 2WM, MA4 3WM

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 Investigate and calculate the Goods and Services Tax (GST), with and without the use of digital technologies

Investigate and calculate 'best buys', with and without the use of digital technologies

Solve problems involving profit and loss, with and without the use of digital technologies.

Topic 5: Equations

MA4 10NA, MA4 11NA, MA4 1WM, MA4 2WM, MA4 3WM

Solve simple linear equations

Solve linear equations using algebraic techniques and verify solutions by substitution

Solve simple quadratic equations

Topic 6: Ratio and Rates

MA4 7NA, MA4 1WM, MA4 2WM, MA4 3WM

Topic 6: Ratio and Rates

MA4 7NA, MA4 1WM, MA4 2WM, MA4 3WM

Recognise and solve problems involving simple ratios

Solve a range of problems involving ratios and rates, with and without the use of digital technologies

Investigate, interpret and analyse graphs from authentic data

Topic 6: Ratio and Rates

MA4 7NA, MA4 1WM, MA4 2WM, MA4 3WM

2023 Year 8 Scope and Sequence

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	

	Topic 7: Linear Relationships			Topic 8: Probability		Topic 9: Data Collection and Representation and Single Variable Data				Topic 9: Data Collection and Representation and Single Variable Data
S. D. D.	MA4 11NA, MA4 1WM, MA4 3WM			MA4 21SP, MA4 1WM, MA4 2WM, MA4 3WM		MA4 19SP, MA4 20SP, MA4 1WM, MA4 2WM, MA4 3WM			Year 8 Camp ???	MA4 19SP, MA4 20SP, MA4 1WM, MA4 2WM, MA4 3WM

Topic 7: Linear Relationships

Create algebraic expressions and evaluate them by substituting a given value for each variable

Plot linear relationships on the Cartesian plane, with and without the use of digital technologies

Solve linear equations using graphical techniques

Topic 8: Probability

Describe events using language of 'at least', exclusive 'or' (A or B but not both), inclusive 'or' (A or B or both) and 'and'

Represent events in two-way tables and Venn diagrams and solve related problems

Topic 9: Data Collection and Representation and Single Variable Data

Investigate techniques for collecting data, including census, sampling and observation

Explore the practicalities and implications of obtaining data through sampling using a variety of investigative processes

Identify and investigate issues involving numerical data collected from primary and secondary sources

Construct and compare a range of data displays, including stem-and-leaf plots and dot plots Calculate mean, median, mode and range for sets of data and interpret these statistics in the context of data

Investigate the effect of individual data values, including outliers, on the mean and median

Describe and interpret data displays using mean, median and range

Explore the variation of means and proportions of random samples drawn from the same population

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Term 4 2023

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	
	9/10	16/10	23/10	30/10	6/11	13/11	20/11	27/11	4/12	11/12	18/12 / 19/12	

	Topic 10: Measurement			Study Skills and Semester 2 Exam		Topic 10: continued	Topic 11: Properties of Geometric Figures				SDD / SDD	School Holidays
	MA4 12MG, MA4 13MG, MA4 14MG, MA4 1WM, MA4 2WM, MA4 3WM						MA4 17MG, MA4 1WM, MA4 2WM, MA4 3WM					

Topic 10: Measurement

Use formulas to solve problems involving circumference

Find areas of trapeziums, rhombuses and kites

Investigate the relationship between features of circles, such as the area and the radius; use formulas to solve problems involving area

Draw different views of prisms and solids formed from combinations of prisms

Choose appropriate units of measurement for volume and convert from one unit to another

Develop the formulas for the volumes of rectangular and triangular prisms and of prisms in general; use formulas to solve problems involving volume

Calculate the volumes of cylinders and solve related problems

Topic 11: Properties of Geometric Figures

Use the properties of special triangles and quadrilaterals to solve simple numerical problems with appropriate reasoning

Define congruence of plane shapes using transformations

Develop the conditions for congruence of triangles

Establish some of the properties of quadrilaterals using congruent triangles and angle properties, and solve related numerical problems using reasoning

2023 Year 8 Scope and Sequence

1 **School Photos**
2 **Maths Competition**