

Year 8 – Australian Curriculum: Mathematics

Identify curriculum	Achievement standard	<p>By the end of Year 8, students solve everyday problems involving rates, ratios and percentages. They describe index laws and apply them to whole numbers. They describe rational and irrational numbers. Students solve problems involving profit and loss. They make connections between expanding and factorising algebraic expressions. Students solve problems relating to the volume of prisms. They make sense of time duration in real applications. They identify conditions for the congruence of triangles and deduce the properties of quadrilaterals. Students model authentic situations with two-way tables and Venn diagrams. They choose appropriate language to describe events and experiments. They explain issues related to the collection of data and the effect of outliers on means and medians in that data.</p> <p>Students use efficient mental and written strategies to carry out the four operations with integers. They simplify a variety of algebraic expressions. They solve linear equations and graph linear relationships on the Cartesian plane. Students convert between units of measurement for area and volume. They perform calculations to determine perimeter and area of parallelograms, rhombuses and kites. They name the features of circles and calculate the areas and circumferences of circles. Students determine the probabilities of complementary events and calculate the sum of probabilities.</p>							
Teaching and learning	Term overview	Term 1		Term 2		Term 3		Term 4	
	NUMBER AND ALGEBRA <ul style="list-style-type: none"> - Describe index laws and apply the laws to whole numbers. - Apply mental computation and written strategies to solve integers problems using the four operations. - Solve linear equations and graph the relations on the Cartesian plane. 		NUMBER AND ALGEBRA <ul style="list-style-type: none"> - Simplify algebraic expressions. - They make connections between expanding and factorising algebraic expressions. - Solve everyday problems using ratio, rates and percentages. MEASUREMENT AND GEOMETRY <ul style="list-style-type: none"> - Apply understanding of time to real-life applications. 		MEASUREMENT AND GEOMETRY <ul style="list-style-type: none"> - Converting units of measurement for area and volume. - Calculate the perimeter and area of parallelograms, rhombuses and kites. - Solve problems relating to the volume of prisms. - Name the features of circles. and calculate the circumference and area of circles. - Describe rational and irrational numbers. - Identify conditions for congruence of triangles. and deduce the properties of quadrilaterals. 		NUMBER AND ALGEBRA <ul style="list-style-type: none"> - Solve problems involving profit and loss. STATISTICS AND PROBABILITY <ul style="list-style-type: none"> - Model authentic situations with two-way tables and Venn diagrams. - Choose appropriate language to describe events and experiments. - Explain issues related to the collection of data and the effect of outliers on means and medians in that data. - Determine the probabilities of complementary events and calculate the sum of probabilities. 		
	General capabilities and Cross curriculum priorities								
									
Develop assessment	Major Assessment	Term 1		Term 2		Term 3		Term 4	
		Week	Assessment instrument	Week	Assessment instrument	Week	Assessment instrument	Week	Assessment instrument
		4	Index Laws Test	15	Algebra/Linear Relations Test	7	Measurement Test and Assignment	15	Statistics Assignment
		7	Integers Assignment	17	Rates and Ratios Assignment	10	Congruency Test	17	Probability Assignment
				All semester	Continuous ongoing assessment			All semester	Continuous ongoing assessment
Make judgments and use feedback	Moderation	Term 1		Term 2		Term 3		Term 4	
Teachers moderate assessment tasks to ensure consistency of judgments.									