

Year 8 Dwyer	SCASA Standards	Dwyer Exercise Standard	Extra Resources	Assessments
<b>TERM 1</b> <b>Weeks 1-2</b>  Chapter 8 & 13 Data <ul style="list-style-type: none"> <li>• Collecting</li> <li>• Organising</li> <li>• Analysing</li> <li>• Descriptive Stats</li> <li>• Sampling / Bias</li> <li>• Population Estimation</li> </ul>	A – (20%) Calculates the mean and the median of a data set, explaining how the relationship between the two is influenced by outliers and other values. Describes different methods for the collection of data and explains their impact on the collected data.	Ex 8.1 - Ex 8.8  Ex 13.5	Quest Ch12  Cambridge Ch 8 (8.1 – 8.5)	
	B – (30%) Calculates the mean and the median of a data set, identifying outliers and explaining their influence on the relationship between the two. Describes different methods for the collection of data.	<i>Review</i> – Ex 8.15; 8.16; 13.1-13.4; 13.12; 13.13	Pearson Ch 9 (Ex 9.1-9.4)	
	C – (30%) Calculates the mean and the median of a data set and identifies the effect of an outlier on them. Identifies issues related to the collection of data.			
	D – (20%) Calculates the mean and median of data in a list.			
<b>Week 3-5</b> <ul style="list-style-type: none"> <li>• Chapter 2 – Integers</li> <li>• Chapter 6 – Real Numbers</li> </ul>	A Substitutes integers and rational numbers to find the value of complex algebraic expressions involving the four operations and indices, explaining mental strategies or showing written strategies. Applies order of operations to evaluate numerical expressions involving powers and integers.	Ex 2.1 - Ex 2.9  Ex 6.1 – Ex 6.6	Quest Ch 2; Ch 4  Cambridge Ch 1; Ch 3  Pearson Ch1 (1.1 – 1.3); Ch 2	
	B Substitutes integers and rational numbers to find the value of algebraic expressions involving the four operations and indices, explaining mental strategies or showing written strategies. Identifies forms of numbers and classifies numbers as rational or irrational.	<i>Review</i> – Ex 2.16, 2.17; 6.13; 6.14		
	C Evaluates numerical expressions involving integers and the four operations, using and explaining mental strategies or showing written strategies. Identifies forms of numbers and classifies numbers as rational or irrational.			
	D Calculates numerical values with the use of technology and checks that the value is reasonable.			

<b>Week 6-10</b> <b>RMF</b>	RMF			Week 6: Test 1 (ch 8, 13, 2, 6)  Week 8: Mental 1  Week 10: Investigation 1 (Take home wk 9)
<b>TERM 2</b> <b>Week 1-2</b>  Chapter 1 – Index Laws	A Applies index laws to simplify numeric expressions involving powers. B Applies index laws to numbers expressed as powers. C Applies index laws to whole numbers. D Attempts to apply index laws to whole numbers, but confuses the operations between the bases and the powers.	Ex 1.1 - Ex 1.12  <i>Review</i> – Ex 1.19; 1.20	Quest Ch 3  Cambridge Ch 5 (5.10-5.11)  Pearson Ch 1 (1.5, 1.6)	
<b>Weeks 3-4</b>  Chapter 3 - Algebra	A Simplifies algebraic expressions, including fractions with numerical denominators, the four operations and multiple uses of the distributive law. Factorises binomial or trinomial numeric and algebraic expressions and shows the correct signs or operations when the factor is negative. B Simplifies algebraic expressions involving the four operations and the use of the distributive law twice. Factorises binomial numeric and algebraic expressions. C Makes connections between expanding and factorising algebraic expressions. Uses the distributive law once and simplifies if necessary. D Simplifies algebraic expressions with like terms only.	Ex 3.1 - Ex 3.16  <i>Review</i> – Ex 3.23; 3.24	Quest Ch 7 & 8  Cambridge Ch 5 (5.1 – 5.9)  Pearson Ch 3	Week 4: Test 2 (ch 1, 3)
<b>Week 5</b>  Chapter 4 – Probability	A Writes the associated probability in multiple number forms. Applies probability to solve problems. Interprets the sample space using relevant language, including the distinction between inclusive and exclusive “or”.	Ex 4.1 - Ex 4.3  <i>Review</i> – Ex 4.10;	Quest Ch 13 (13A – 13D)  Cambridge Ch 8 (8.7 – 8.9)	

<ul style="list-style-type: none"> <li>Theoretical</li> <li>Complement</li> </ul>	B Interprets the sample space using relevant language, such as ‘at least’, ‘at most’ and determines associated probabilities.	4.11	Pearson Ch 9 (Ex 9.5 – 9.6)	
	C Determines associated probabilities, identifies complementary events and calculates the sum of probabilities.			
	D Answers simple probability questions.			
<b>Week 6</b>	<b>Exam Revision</b>			
<b>Week 7</b>	<b>Semester 1 Exam</b>			Week 7: EXAM
<b>Week 8</b>  Chapter 18 – Probability <ul style="list-style-type: none"> <li>Venn Diagrams</li> <li>Two-Way Tables</li> </ul>	A Uses Venn Diagrams and two-way tables to model more than two choices and describes each region of the sample space. Writes the associated probability in multiple number forms. Applies probability to solve problems. Interprets the sample space using relevant language, including the distinction between inclusive and exclusive “or”.	Ex 18.2 - Ex 18.5  <u>Review</u> – Ex 18.12; 18.13	Quest Ch13 (13E – 13F)  Cambridge Ch 8 (Ex 8.10)  Pearson Ch 9 (Ex 9.7)	
	B Uses Venn diagrams and two-way tables to model more than two choices, showing that their probabilities sum to 1. Interprets the sample space using relevant language, such as ‘at least’, ‘at most’ and determines associated probabilities.			
	C Uses Venn diagrams and two-way tables to model authentic situations. Determines associated probabilities, identifies complementary events and calculates the sum of probabilities.			
	D Completes or draws matching Venn diagrams and two-way tables and answers simple probability questions.			
<b>Weeks 9-10</b>  Chapter 14 – Time <ul style="list-style-type: none"> <li>12 / 24 hr</li> </ul>	A Solves complex problems involving time duration in real applications, including multiple rates.	Ex 14.1 - Ex 14.5  <u>Review</u> – Ex 14.12	Quest Ch 10 (10G-10H)  Cambridge Ch 4 (Ex 4.10)	Week 9: Mental 2
	B Solves multi-step problems involving time duration in real applications.			

<ul style="list-style-type: none"> <li>Australian Time Zones</li> <li>International Time Zones</li> </ul>	<p>C Calculates time duration in real applications (eg time to travel a distance).</p> <p>D Calculates time duration for simple applications.</p>	14.13	Pearson Ch 5 (Ex 5.8)	
<p><b>TERM 3</b> <b>Week 1-2</b></p> <p>Chapter 11 – Ratio and Rate</p>	<p>A</p> <ul style="list-style-type: none"> <li>Applies percentages, rates and ratios to solve complex word problems requiring at least three calculations, including inverse, with and without technologies.</li> <li>Solves complex multi-step word problems involving profit and loss, including inverse calculations, with and without digital technologies.</li> </ul> <p>B</p> <ul style="list-style-type: none"> <li>Applies percentages, rates and ratios to solve complex word problems requiring multiple calculations, including inverse, with and without technologies.</li> <li>Solves multi-step word problems involving profit and loss, with and without digital technologies.</li> </ul> <p>C</p> <ul style="list-style-type: none"> <li>Applies percentages, rates and ratios to solve simple, everyday word problems requiring multiple calculations, with and without technologies.</li> <li>Solves simple word problems involving profit and loss, with and without digital technologies.</li> </ul> <p>D</p> <ul style="list-style-type: none"> <li>Makes calculations using percentages, rates and ratios in simple one-step problems.</li> <li>Calculates profit and loss, with and without digital technologies.</li> </ul>	<p>Ex 11.1 - Ex 11.8</p> <p><i>Review</i> – Ex 11.15, 11.16</p>	<p>Quest Ch 5 &amp; 6</p> <p>Cambridge Ch 6</p> <p>Pearson Ch 4</p>	
<p><b>Weeks 3-5</b></p> <p>Chapters 12 &amp; 16 – Linear Equations</p>	<p>A</p> <ul style="list-style-type: none"> <li>Identifies relationships as linear or non-linear, justifying that the relationship is linear by providing reasoning for the conclusion, and expresses the rule in multiple ways. Solves multi-step linear equations, including the use of fractions, and verifies the solution.</li> <li>Solves complex multi-step word problems involving profit and loss, including inverse calculations, with and without digital technologies.</li> </ul>	<p>Ex 12.1 - Ex 12.8</p> <p>Ex 16.1 – 16.7</p> <p><i>Review</i> – Ex 12.15, 12.16;</p>	<p>Quest Ch 11 &amp; 14</p> <p>Cambridge Ch 7 &amp; 9</p> <p>Pearson Ch 6 &amp; 7</p>	<p>Week 3: Test 3 (ch 4?, 18, 14, 11)</p> <p>Week 5: Investigation 2 (Take home wk 4)</p>

	<p>B</p> <ul style="list-style-type: none"> <li>• Determines the rule for a linear relationship. Compares and explains similarities and differences between different linear relationships. Solves multi-step linear equations, using algebraic techniques.</li> <li>• Solves multi-step word problems involving profit and loss, with and without digital technologies.</li> </ul>	16.13; 16.14		
	<p>C</p> <ul style="list-style-type: none"> <li>• Simplifies a variety of algebraic expressions. Creates and plots a table of values for an authentic linear relationship, with and without the use of technologies. Solves the associated linear equations algebraically and graphically.</li> <li>• Solves simple word problems involving profit and loss, with and without digital technologies.</li> </ul>			
	<p>D</p> <ul style="list-style-type: none"> <li>• Plots points on the Cartesian plane and solves one-step linear equations, without justification.</li> <li>• Calculates profit and loss, with and without digital technologies.</li> </ul>			
<p><b>Weeks 6-7</b></p> <p>Chapter 9 - Circles</p>	<p>A</p> <p>Uses the correct relationship to solve multi-step problems involving the circumference and area of circles, including the inverse formulas, and uses numbers expressed in exact form.</p>	<p>Ex 9.1 - Ex 9.8</p> <p><u>Review</u> – Ex 9.15, 9.16</p>	<p>Quest Ch 10 (Ex 10B; 10D)</p> <p>Cambridge Ch 4 (Ex 4.2, 4.5)</p> <p>Pearson Ch 5 (Ex 5.2; 5.3; 5.5)</p>	
	<p>B</p> <p>Uses the correct relationship to solve a problem involving the perimeter and area of circles.</p>			
	<p>C</p> <p>Identifies features of circles and calculates the circumference and area of circles. Converts between units of area.</p>			
	<p>D</p> <p>Uses formulas incorrectly in calculations for circumference and area. Uses the conversion number only once in the conversion of units of area.</p>			

<b>Weeks 8-10</b> Chapter 17 – Measurement	<b>A</b> <ul style="list-style-type: none"> <li>Extracts information and solves complex problems involving the perimeter and area of quadrilaterals and triangles, with inverse use of formulas and the application of percentages, rates and ratios.</li> <li>Selects and uses formulas for the volume of prisms and performs inverse calculations in word problems with multiple steps.</li> </ul>	Ex 17.1 - Ex 17.8  <u>Review</u> – Ex 17.15, 17.16	Quest Ch 10 )Ex 10A; 10C; 10E; 10F)  Cambridge Ch 4 (Ex 4.1, 4.1, 4.4, 4.6 – 4.9)  Pearson Ch 5 (Ex 5.1; 5.4; 5.7)	Week 8: Mental 3  Week 10: Test 4 (ch 12, 16, 9, 17)
	<b>B</b> <ul style="list-style-type: none"> <li>Extracts information and solves problems involving the perimeter and area of parallelograms, rhombuses, trapeziums and kites, with the application of percentages and rates.</li> <li>Selects and uses formulas for the volume of prisms and performs inverse calculations.</li> </ul>			
	<b>C</b> <ul style="list-style-type: none"> <li>Calculates the perimeter and area of parallelograms, rhombuses and kites.</li> <li>Calculates the volume of prisms. Converts between units of volume.</li> </ul>			
	<b>D</b> <ul style="list-style-type: none"> <li>Calculates the perimeter and area of simple quadrilaterals.</li> <li>Uses the conversion number only once in the conversion of units of volume.</li> </ul>			
<b>TERM 4</b> <b>Week 1-4</b> Chapters 7 & 19 – Congruence	<b>A</b> <ul style="list-style-type: none"> <li>Extracts information from word problems and draws diagrams using correct geometric symbols. Selects from the four conditions (SSS, SAS, AAS, RHS) to explain the congruency of triangles.</li> <li>Solves problems involving congruent figures using the properties of angles, triangles and quadrilaterals, providing a full explanation.</li> </ul>	Ex 7.1 - Ex 7.5  Ex 19.1 – Ex 19.9  <u>Review</u> – Ex 7.12, 7.13; 19.16; 19.17	Quest Ch 7  Cambridge Ch 2 (Ex 2.4; 2.5) & Ch 10  Pearson Ch 8	
	<b>B</b> <ul style="list-style-type: none"> <li>Identifies the presence, or not, of congruency in triangles of varying orientations, naming the triangles and the condition.</li> <li>Uses congruency of triangles to explain the properties of quadrilaterals. Solves problems using the properties of congruent figures.</li> </ul>			
	<b>C</b> <ul style="list-style-type: none"> <li>Identifies congruency in triangles and names the condition.</li> <li>Uses congruency of triangles to deduce the properties of quadrilaterals.</li> </ul>			

	<p>D</p> <ul style="list-style-type: none"> <li>• Identifies congruency in triangles, but makes frequent errors when naming the triangles and condition.</li> <li>• Identifies and correctly names quadrilaterals.</li> </ul>			
<b>Week 5</b>	<b>Exam Revision</b>			Week 5 – Mental 4
<b>Week 6</b>	<b>Semester 2 Examination</b>			Week 6: EXAM
<b>Weeks 7 – 10</b> <b>TBC</b>	RE-Teaching      RMF NAPLAN Preparation   Algebra			