

## Mapping tool – preamble for Mathematics

This mapping tool matches essential content elements from two curriculum frameworks: *Every chance to learn* ELA 16, ELA 17 and ELA 18 to the Australian Curriculum (Mathematics) V1.1. Teachers using this tool are reminded to consider the underlying principles and philosophy as well.

The **Overview** of each ELA in *Every chance to learn* discusses the scope, features, concepts, values and attitudes of

- ELA 16 *The student understands and applies number*
- ELA 17 *The student chooses and uses measures*
- ELA 18 *The student recognises and represents patterns and relationships*

The **Rationale** of the Australian Curriculum (Mathematics) reminds readers that the three interrelated strands have different intentions:

- The *Statistics and Probability* strand supports students recognising and analysing data and drawing inferences.
- The *Measurement and Geometry* strand supports students developing an increasingly sophisticated understanding of size, shape, relative position and movement of two-dimensional figures in the plane and three-dimensional objects in space.
- The *Number and Algebra* strand supports the exploration of number representation, computation, patterns and relationships.

Further information can be inferred from

- opening **hyperlinked codes** to the Australian Curriculum, and pasting them into the 'search' function to identify content elaborations, general capabilities and links to cross-curriculum priorities.

## Mathematics – Later Adolescence

Every chance to learn		Australian Curriculum		
16. The student understands and applies number		Number and algebra		
		Year 9	Year 10	Year 10A
<b>16.LA.1</b>	the real number system, including integers, rational and irrational numbers	Forms a part of any number work, however is not specifically addressed in this year level in Australian Curriculum		
<b>16.LA.2</b>	different representations of numbers, including prime factors and scientific notation for very large or very small numbers	<b>Using units of measurement</b> <ul style="list-style-type: none"> <li>• Investigate very small and large timescales and intervals (ACMMG219)</li> </ul> <b>Real numbers</b> <ul style="list-style-type: none"> <li>• Express numbers in scientific notation (ACMNA210)</li> </ul>		
<b>16.LA.3</b>	irrational numbers arising in space and measurement problems	Would be addressed in trigonometry and other problems which are addressed in Australian Curriculum		
<b>16.LA.4</b>	simple powers and square roots	<b>Real numbers</b> <ul style="list-style-type: none"> <li>• Apply index laws to numerical expressions with integer indices (ACMNA209)</li> </ul> <b>Patterns and algebra</b> <ul style="list-style-type: none"> <li>• Extend and apply the index laws to variables, using positive</li> </ul>		

		integral indices and the zero index ( <a href="#">ACMNA212</a> )		
<b>16.LA.5</b>	the dynamic nature of mathematical knowledge developed across cultures, throughout history and continuing today	Not addressed in Australian Curriculum		
<b>16.LA.6</b>	formulate and solve problems involving fractions, decimals, ratio, proportion, percentage and rate, using understandings of rational numbers in different forms	<p><b>Geometric reasoning</b></p> <ul style="list-style-type: none"> <li>Solve problems using ratio and scale factors in similar figures (<a href="#">ACMMG221</a>)</li> </ul> <p><b>Real numbers</b></p> <ul style="list-style-type: none"> <li>Solve problems involving direct proportion. Explore the relationship between the graphs and equations corresponding to simple rate problems (<a href="#">ACMNA208</a>)</li> </ul> <p><b>Money and financial mathematics</b></p> <ul style="list-style-type: none"> <li>Solve problems involving simple interest (<a href="#">ACMNA211</a>)</li> </ul>	<p><b>Money and financial mathematics</b></p> <ul style="list-style-type: none"> <li>Connect the compound interest formula to repeated applications of simple interest using appropriate digital technologies (<a href="#">ACMNA229</a>)</li> </ul>	
<b>16.LA.7</b>	recognise and use the most suitable equivalent form when comparing and ordering rational numbers	Not addressed in Australian Curriculum		
<b>16.LA.8</b>	locate integers, rational numbers and	Not addressed in Australian Curriculum		

	decimal approximations to some irrational numbers on the real number line		
<b>16.LA.9</b>	apply a range of number facts, properties and strategies to carry out computations involving integers and rational numbers for the four arithmetic operations	Not addressed in Australian Curriculum	
<b>16.LA.10</b>	apply the relevant operations, with attention to the meaning and order of the operations involved, in practical and theoretical situations	Not addressed in Australian Curriculum	
<b>16.LA.11</b>	interpret irrational numbers arising in space and measurement contexts geometrically and calculate with these numbers using decimal approximations	Would be addressed in trigonometry and other problems which are addressed in Australian Curriculum	
<b>16.LA.12</b>	use a range of strategies to form	Would be addressed in trigonometry and other problems which are addressed in Australian Curriculum	

	estimates for computations involving rational and some irrational numbers, and form upper and lower bounds for estimates		
<b>16.LA.13</b>	interpret calculator displays sensibly within the context of the calculation (e.g. rounding to an appropriate number of decimal places)	Would be addressed in trigonometry and other problems which are addressed in Australian Curriculum	

Every chance to learn		Australian Curriculum		
17. The student chooses and uses measures		Statistics and probability Space and geometry		
		Year 9	Year 10	Year 10A
<b>17.LA.1</b>	measurement error, including recording measurements as values that lie within a given interval of measurement error, judgements about acceptable or reasonable error in a measurement context, strategies to minimise error and estimation of error rates to provide confidence in measurement results, and risks of compounding error by repetition and calculation	Not addressed in Australian Curriculum		
<b>17.LA.2</b>	the history of the metric system and changing definitions of International System (SI) base units	Not addressed in Australian Curriculum		

17.LA.3	rates as comparisons of one attribute to another (e.g. speed as relating distance and time, population density as relating number of people and area)	<b>Real numbers</b> <ul style="list-style-type: none"> <li>Solve problems involving direct proportion. Explore the relationship between the graphs and equations corresponding to simple rate problems (<a href="#">ACMNA208</a>)</li> </ul>	<b>Data representation and interpretation</b> <ul style="list-style-type: none"> <li>Investigate and describe bivariate numerical data where the independent variable is time (<a href="#">ACMSP252</a>)</li> </ul>	
17.LA.4	probability involving equally likely events and the use of random or nearly random event generators, including technology	Not addressed in Australian Curriculum		
17.LA.5	statistical measures of frequency, spread and centre (location) as ways to analyse and compare data, how bias can arise in data and the effect of outliers on the measures of location	<b>Chance</b> <ul style="list-style-type: none"> <li>Investigate reports of surveys in digital media and elsewhere for information on how data were obtained to estimate population means and medians (<a href="#">ACMSP227</a>)</li> </ul> <b>Data representation and interpretation</b> <ul style="list-style-type: none"> <li>Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread (<a href="#">ACMSP283</a>)</li> </ul>	<b>Data representation and interpretation</b> <ul style="list-style-type: none"> <li>Determine quartiles and interquartile range (<a href="#">ACMSP248</a>)</li> </ul>	
17.LA.6	choose and use instruments, technologies,	<b>Pythagoras and trigonometry</b> <ul style="list-style-type: none"> <li>Apply trigonometry to solve right-angled triangle problems</li> </ul>	<b>Pythagoras and trigonometry</b> <ul style="list-style-type: none"> <li>Solve right-angled triangle problems including those</li> </ul>	

	strategies and formulas to estimate, measure and calculate measures of attributes, including mass, duration, temperature, angle and simple derived measures such as rates	<p>(ACMMG224)</p> <p><b>Using units of measurement</b></p> <ul style="list-style-type: none"> <li>Calculate the area of composite shapes (ACMMG216)</li> <li>Calculate the surface area and volume of cylinders and solve related problems (ACMMG217)</li> </ul>	<p>involving direction and angles of elevation and depression (ACMMG245)</p> <p><b>Data representation and interpretation</b></p> <ul style="list-style-type: none"> <li>Investigate and describe bivariate numerical data where the independent variable is time (ACMSP252)</li> </ul>	
<b>17.LA.7</b>	work routinely with International System (SI) and other units with respect to both everyday and technical measurement contexts, including derived measures, choose units appropriate to the order of magnitude involved and estimate values that lie between marked graduations on scales of measuring instruments	Would be addressed in most measurement problems		
<b>17.LA.8</b>	recognise equivalent forms of the same measure, making conversions as required, and apply Pythagoras' theorem, scale and rates in	<p><b>Geometric reasoning</b></p> <ul style="list-style-type: none"> <li>Solve problems using ratio and scale factors in similar figures (ACMMG221)</li> </ul> <p><b>Pythagoras and trigonometry</b></p> <ul style="list-style-type: none"> <li>Investigate Pythagoras'</li> </ul>		

	appropriate situations to work out measures	Theorem and its application to solving simple problems involving right angled triangles (ACMMG222)	
<b>17.LA.9</b>	use a variety of sources, including samples and surveys, published data, databases, experiments and simulations, to estimate probabilities associated with events and assign or estimate probabilities based on personal experiences	<b>Chance</b> <ul style="list-style-type: none"> <li>Calculate relative frequencies from given or collected data to estimate probabilities of events involving 'and' or 'or' (ACMSP226)</li> </ul>	
<b>17.LA.10</b>	specify sample (event) spaces for single and straightforward compound events using a variety of suitable representations, and determine corresponding probabilities using counting, measure and symmetry	<b>Chance</b> <ul style="list-style-type: none"> <li>List all outcomes for two step chance experiments, both with and without replacement using tree diagrams or arrays. Assign probabilities to outcomes and determine probabilities for events (ACMSP225)</li> </ul>	<b>Chance</b> <ul style="list-style-type: none"> <li>Describe the results of two and three step chance experiments, both with and without replacements, assign probabilities to outcomes and determine probabilities of events. Investigate the concept of independence (ACMSP246)</li> </ul>
<b>17.LA.11</b>	choose and use a variety of suitable representations and descriptive statistics to summarise data	<b>Data representation and interpretation</b> <ul style="list-style-type: none"> <li>Investigate techniques for collecting data, including census, sampling and</li> </ul>	<b>Data representation and interpretation</b> <ul style="list-style-type: none"> <li>Use scatter plots to investigate and comment on relationships between two continuous</li> </ul>

	(using technology for larger data sets) and interpret discrete and continuous data obtained by random sample from a population	observation (ACMSP284)	variables (ACMSP251)	
<b>17.LA.12</b>	use proportions, simple measures of spread and centre (mean, median, mode), and consideration of the distribution of data to make informal inferences in response to their own and others' questions and hypotheses	<p><b>Chance</b></p> <ul style="list-style-type: none"> <li>Investigate reports of surveys in digital media and elsewhere for information on how data were obtained to estimate population means and medians (ACMSP227)</li> </ul> <p><b>Data representation and interpretation</b></p> <ul style="list-style-type: none"> <li>Identify everyday questions and issues involving at least one numerical and at least one categorical variable and collect data directly from secondary sources (ACMSP228)</li> </ul>	<p><b>Data representation and interpretation</b></p> <ul style="list-style-type: none"> <li>Determine quartiles and interquartile range (ACMSP248)</li> </ul>	

Every chance to learn		Australian Curriculum		
18. The student recognises and represents patterns and relationships		Number and algebra Space and geometry		
		Year 9	Year 10	Year 10A
<b>18.LA.1</b>	a broad range of 2D shapes (e.g. quadrilaterals, polygons, ellipses), composite shapes and 3D objects, including those with curved surfaces (e.g. cylinders, cones, packages and containers), with respect to properties involving line, length, angle and surface	<b>Using units of measurement</b> <ul style="list-style-type: none"> <li>Solve problems involving the surface area and volume of right prisms (ACMMG218)</li> <li>Calculate the area of composite shapes (ACMMG216)</li> <li>Calculate the surface area and volume of cylinders and solve related problems (ACMMG217)</li> </ul>	<b>Using units of measurement</b> <ul style="list-style-type: none"> <li>Solve problems involving surface area and volume for a range of prisms, cylinders and composite solids (ACMMG242)</li> </ul>	
<b>18.LA.2</b>	geometric properties of shapes and objects (e.g. when two straight lines intersect, opposite angles are equal) and simple geometric proofs, including those related to angle properties associated with parallel, perpendicular and transversal lines and	<b>Pythagoras and trigonometry</b> <ul style="list-style-type: none"> <li>Investigate Pythagoras' Theorem and its application to solving simple problems involving right angled triangles (ACMMG222)</li> </ul>	<b>Geometric reasoning</b> <ul style="list-style-type: none"> <li>Formulate proofs involving congruent triangles and angle properties (ACMMG243)</li> <li>Apply logical reasoning, including the use of congruence and similarity, to proofs and numerical exercises involving plane shapes (ACMMG244)</li> </ul> <b>Linear and non-linear</b>	

	polygons (e.g. sum of angles of a triangle is 180 degrees, Pythagoras' theorem)		<b>relationships</b> <ul style="list-style-type: none"> <li>Solve problems involving parallel and perpendicular lines (ACMNA238)</li> </ul>	
<b>18.LA.3</b>	the relationship of symmetry to transformations and tessellations of regular shapes and composite shapes, in the plane and on surfaces	Not addressed at this year level in Australian Curriculum		
<b>18.LA.4</b>	algebraic expressions, relations and functions, including linear functions, involving arithmetic and other mathematical operations	<b>Real numbers</b> <ul style="list-style-type: none"> <li>Solve problems involving direct proportion. Explore the relationship between the graphs and equations corresponding to simple rate problems (ACMNA208)</li> </ul> <b>Patterns and algebra</b> <ul style="list-style-type: none"> <li>Extend and apply the index laws to variables, using positive integral indices and the zero index (ACMNA212)</li> <li>Apply the distributive law to the expansion of algebraic expressions, including binomials, and collect like terms where appropriate (ACMNA213)</li> </ul>	<b>Patterns and algebra</b> <ul style="list-style-type: none"> <li>Factorise algebraic expressions by taking out a common algebraic factor (ACMNA230)</li> <li>Simplify algebraic products and quotients using index laws (ACMNA231)</li> <li>Apply the four operations to simple algebraic fractions with numerical denominators (ACMNA232)</li> </ul> <b>Linear and non-linear relationships</b> <ul style="list-style-type: none"> <li>Solve problems involving linear equations, including those derived from formulas (ACMNA235)</li> <li>Solve linear equations involving simple algebraic fractions (ACMNA240)</li> </ul>	

<p><b>18.LA.5</b></p>	<p>tables of values and graphs of linear and simple non-linear functions using integer, decimal and fraction values of variables</p>	<p><b>Real numbers</b></p> <ul style="list-style-type: none"> <li>Solve problems involving direct proportion. Explore the relationship between the graphs and equations corresponding to simple rate problems (ACMNA208)</li> </ul> <p><b>Patterns and algebra</b></p> <ul style="list-style-type: none"> <li>Extend and apply the index laws to variables, using positive integral indices and the zero index (ACMNA212)</li> </ul> <p><b>Linear and non-linear relationships</b></p> <ul style="list-style-type: none"> <li>Sketch linear graphs using the coordinates of two points (ACMNA215)</li> <li>Sketch simple non-linear relations with and without the use of digital technologies (ACMNA296)</li> </ul>	<p><b>Linear and non-linear relationships</b></p> <ul style="list-style-type: none"> <li>Solve linear equations involving simple algebraic fractions (ACMNA240)</li> <li>Solve simple quadratic equations using a range of strategies (ACMNA241)</li> </ul>	
<p><b>18.LA.6</b></p>	<p>simultaneous linear equations and non-linear equations</p>	<p><b>Patterns and algebra</b></p> <ul style="list-style-type: none"> <li>Apply the distributive law to the expansion of algebraic expressions, including binomials, and collect like terms where appropriate (ACMNA213)</li> </ul>	<p><b>Linear and non-linear relationships</b></p> <ul style="list-style-type: none"> <li>Solve linear simultaneous equations, using algebraic and graphical techniques including using graphing software (ACMNA237)</li> </ul>	
<p><b>18.LA.7</b></p>	<p>purposes, features and conventions of a range of representations (e.g.</p>		<p><b>Data representation and interpretation</b></p> <ul style="list-style-type: none"> <li>Use scatter plots to investigate and comment on relationships</li> </ul>	

	maps, plans, diagrams, graphs, models, flow charts, networks and timelines), including representations used to depict relationships and change in complex systems		between two continuous variables ( <a href="#">ACMSP251</a> )	
<b>18.LA.8</b>	mapping conventions (e.g. grids, coordinate systems, bearings, scale, distance, angle, keys, references and annotations)	Not addressed at this year level in Australian Curriculum		
<b>18.LA.9</b>	explore pattern and structure (e.g. using ICT) and develop generalisations for further consideration	Not addressed in Australian Curriculum		
<b>18.LA.10</b>	draw by hand representations of common 2D shapes and 3D objects (and their cross-sections), with attention to their geometric properties and scale	<b>Geometric reasoning</b> <ul style="list-style-type: none"> <li>Use the enlargement transformation to explain similarity and develop the conditions for triangles to be similar (<a href="#">ACMMG220</a>)</li> </ul>		
<b>18.LA.11</b>	construct accurate representations of 2D shapes and 3D objects according to	Not addressed at this year level in Australian Curriculum		

	specification using drawing instruments and software (e.g. 2D shapes with specified boundary, angle and scale; front, side and top plan views; and cross-sections of shapes)		
<b>18.LA.12</b>	construct 3D objects from plans, cross-sections, nets and diagrams (e.g. stitching pattern for a soccer ball)	Not addressed at this year level in Australian Curriculum	
<b>18.LA.13</b>	solve problems using geometric knowledge of 2D shapes and 3D objects and analysis of geometric properties of shapes and patterns involving congruence, similarity and sequences of transformations	<b>Geometric reasoning</b> <ul style="list-style-type: none"> <li>Use the enlargement transformation to explain similarity and develop the conditions for triangles to be similar (<a href="#">ACMMG220</a>)</li> </ul>	<b>Geometric reasoning</b> <ul style="list-style-type: none"> <li>Formulate proofs involving congruent triangles and angle properties (<a href="#">ACMMG243</a>)</li> <li>Apply logical reasoning, including the use of congruence and similarity, to proofs and numerical exercises involving plane shapes (<a href="#">ACMMG244</a>)</li> </ul>
<b>18.LA.14</b>	use words and symbols to represent variables and constants when writing expressions for algebraic relations and functions, including linear	Not addressed specifically in Australian Curriculum	

	functions involving arithmetic and other mathematical operations			
<b>18.LA.15</b>	evaluate expressions for algebraic relations and functions, including simple inequalities, using integer, decimal and fraction values of variables		<b>Patterns and algebra</b> <ul style="list-style-type: none"> <li>Substitute values into formulas to determine an unknown (ACMNA234)</li> </ul> <b>Linear and non-linear relationships</b> <ul style="list-style-type: none"> <li>Solve linear inequalities and graph their solutions on a number line (ACMNA236)</li> </ul>	
<b>18.LA.16</b>	model and interpret the expressions and relationships in context and use known relationships (e.g. formulas) to develop new relationships	Not addressed specifically in Australian Curriculum		
<b>18.LA.17</b>	draw graphs of simple non-linear functions, interpret and apply variables and functions in context and make related predictions	<b>Linear and non-linear relationships</b> <ul style="list-style-type: none"> <li>Sketch simple non-linear relations with and without the use of digital technologies (ACMNA296)</li> </ul>	<b>Linear and non-linear relationships</b> <ul style="list-style-type: none"> <li>Solve simple quadratic equations using a range of strategies (ACMNA241)</li> </ul>	
<b>18.LA.18</b>	select and apply inverse, associative, commutative and distributive properties to manipulate and	<b>Patterns and algebra</b> <ul style="list-style-type: none"> <li>Extend and apply the index laws to variables, using positive integral indices and the zero</li> </ul>	<b>Patterns and algebra</b> <ul style="list-style-type: none"> <li>Factorise algebraic expressions by taking out a common algebraic factor (ACMNA230)</li> </ul>	

	rearrange algebraic expressions that involve the four arithmetic operations, reciprocals, whole number powers and square roots	<p>index (<a href="#">ACMNA212</a>)</p> <ul style="list-style-type: none"> <li>Apply the distributive law to the expansion of algebraic expressions, including binomials, and collect like terms where appropriate (<a href="#">ACMNA213</a>)</li> </ul>	<ul style="list-style-type: none"> <li>Simplify algebraic products and quotients using index laws (<a href="#">ACMNA231</a>)</li> <li>Apply the four operations to simple algebraic fractions with numerical denominators (<a href="#">ACMNA232</a>)</li> <li>Expand binomial products and factorise monic quadratic expressions using a variety of strategies (<a href="#">ACMNA233</a>)</li> </ul>	
<b>18.LA.19</b>	use a variety of approaches (e.g. concrete materials, ICT, algebra, diagrams, flowcharts and backtracking) to identify and establish equivalences between linear expressions and between simple non-linear expressions		<p><b>Linear and non-linear relationships</b></p> <ul style="list-style-type: none"> <li>Solve linear simultaneous equations, using algebraic and graphical techniques including using graphing software (<a href="#">ACMNA237</a>)</li> </ul>	
<b>18.LA.20</b>	determine when equations and inequalities are satisfied or not for a given set of values and construct and solve linear equations, including simple simultaneous linear equations and some non-linear equations, using	<p><b>Linear and non-linear relationships</b></p> <ul style="list-style-type: none"> <li>Sketch linear graphs using the coordinates of two points (<a href="#">ACMNA215</a>)</li> <li>Sketch simple non-linear relations with and without the use of digital technologies (<a href="#">ACMNA296</a>)</li> </ul>	<p><b>Linear and non-linear relationships</b></p> <ul style="list-style-type: none"> <li>Solve linear inequalities and graph their solutions on a number line (<a href="#">ACMNA236</a>)</li> <li>Solve linear simultaneous equations, using algebraic and graphical techniques including using graphing software (<a href="#">ACMNA237</a>)</li> <li>Solve simple quadratic</li> </ul>	

	tables, graphs, algebra and ICT		equations using a range of strategies (ACMNA241)	
<b>18.LA.21</b>	draw graphs for families of linear and some simple non-linear functions generated by changing constants used to define the rule of the function, and use ICT to explore and describe the effects of varying these constants and to interpret the shape of a graph and its key features in context	<b>Linear and non-linear relationships</b> <ul style="list-style-type: none"> <li>Sketch simple non-linear relations with and without the use of digital technologies (ACMNA296)</li> </ul>	<b>Linear and non-linear relationships</b> <ul style="list-style-type: none"> <li>Explore the connection between algebraic and graphical representations of relations such as simple quadratics, circles and exponentials using graphing software as appropriate (ACMNA239)</li> <li>Solve simple quadratic equations using a range of strategies (ACMNA241)</li> </ul> <p>Note: Other aspects of this ELA are not addressed specifically in Australian Curriculum</p>	
<b>18.LA.22</b>	interpret, create and use a range of representations and evaluate their effectiveness for different purposes and contexts (e.g. a schematic diagram to construct an object or system, a draw for a knockout competition)	Not addressed specifically in Australian Curriculum		
<b>18.LA.23</b>	choose and use appropriate mathematical symbols and	<b>Patterns and algebra</b> <ul style="list-style-type: none"> <li>Extend and apply the index laws to variables, using positive</li> </ul>	<b>Data representation and interpretation</b> <ul style="list-style-type: none"> <li>Use scatter plots to investigate</li> </ul>	

	notations, diagrams, tables, graphs, variables, relations and equations to represent concepts and relationships, to apply skills and processes and to clarify, modify and refine statements	integral indices and the zero index ( <a href="#">ACMNA212</a> )	and comment on relationships between two continuous variables ( <a href="#">ACMSP251</a> )	
<b>18.LA.24</b>	use grids, coordinate systems, bearings, scale, distance, angle and various keys, references and annotations to interpret and construct maps, diagrams and plans (e.g. bushwalking, orienteering)	Not addressed at this year level in Australian Curriculum		
<b>18.LA.25</b>	interpret, construct and use maps, diagrams and plans to specify location, represent relationships spatially and move from one location to another (e.g. plan a holiday itinerary)	Not addressed at this year level in Australian Curriculum		

### Year 9

Calculate the areas of composite shapes (also features in Early Adolescent band of development) ([ACMMG216](#))

Find the distance between two points located on a Cartesian plane using a range of strategies, including graphing software ([ACMNA214](#)) (more specific than ECTL)

Find the midpoint and gradient of a line segment (interval) on the Cartesian plane using a range of strategies, including graphing software ([ACMNA214](#)) (more specific than ECTL)

Use similarity to investigate the constancy of the sine, cosine and tangent ratios for a given angle in right-angled triangles ([ACMMG223](#))

Construct back-to-back stem-and-leaf plots and histograms and describe data, using terms including 'skewed', 'symmetric' and 'bi modal' ([ACMSP282](#)) (more specific than ECTL)

### **Year 10**

Connect the compound interest formula to repeated applications of simple interest using appropriate digital technologies (also addressed in ELA 24 The student understands money and finance) ([ACMNA229](#))

Expand binomial products and factorise monic quadratic expressions using a variety of strategies (more descriptive than in ECTL) ([ACMNA233](#))

Use the language of 'if...then', 'given', 'of', 'knowing that' to investigate conditional statements and identify common mistakes in interpreting such language (statistical literacy has not been previously addressed in ECTL) ([ACMSP247](#))

Construct and interpret box plots and use them to compare data sets (more specific than in ECTL) ([ACMSP249](#))

Compare shapes of box plots to corresponding histograms and dotplots (as above) ([ACMSP250](#))

Evaluate statistical reports in the media and other places by linking claims to displays, statistics and representative data (statistical literacy) ([ACMSP253](#))

### **Year 10A**

Almost all of the content in Year 10A is of a higher standard than that of *Every chance to learn* as it is considered extension for more capable students.