

NSW Syllabus Content Map

Education Perfect Maths is an online learning resources with scaffolded smart lessons aligned to the NSW Syllabus. This table aligns the lessons provided by Education Perfect to the NSW Syllabus.

Stage 5.1 NSW Syllabus	
Standard	Education Perfect Lessons
Number and Algebra	
Financial Mathematics (MA5.1-4NA) Solves financial problems involving earning, spending and investing money	
Solve problems involving earning money	Income Tax Revision: Profit and Loss Revision: Discounts and Supply Chains Revision: Budgeting and Usage Plans Revision: Percentage Discounts and Unit Pricing
Solve problems involving simple interest (ACMNA211)	Interest Theory Calculating Simple Interest Simple Interest: Real World Applications
Connect the compound interest formula to repeated applications of simple interest using appropriate digital technologies (ACMNA229)	Compound Interest Basic Formula Compound Interest - Months and Weeks
Indices (MA5.15NA) Operates with algebraic expressions involving positive-integer and zero indices, and establishes the meaning of negative indices for numerical bases.	
Extend and apply the index laws to variables, using positive-integer indices and the zero index (ACMNA212)	The Zero Index Powers as the Base of Another Power Multiplication as the Base of a Power Division as the Base of a Power
Simplify algebraic products and quotients using index laws (ACMNA231)	Multiplying Powers Dividing Powers
Apply index laws to numerical expressions with integer indices (ACMNA209)	Integer Indices Applying Index Laws Fractional Indices
Linear Relationships (MA5.16NA) Determines the midpoint, gradient and length of an interval, and graphs linear relationships.	
Find the midpoint and gradient of a line segment (interval) on the Cartesian plane using a range of strategies, including graphing software (ACMNA294)	Line Segments on Cartesian Planes Gradient of a Line Segment Midpoint of a Line Segment Applications of Coordinate Geometry: Midpoint

	Applications of Coordinate Geometry: Gradient Revision: Cartesian Planes Revision: Reading Graphs
Find the distance between two points located on the Cartesian plane using a range of strategies, including graphing software (ACMNA214)	Distance and Pythagoras' Theorem Applications of Coordinate Geometry: Distance
Sketch linear graphs using the coordinates of two points (ACMNA215)	Plotting Linear Graphs Drawing Linear Graphs Using the Gradient Graphing Using Technology - Casio Calculators Revision: Linear Graphs
Solve problems involving parallel lines (ACMNA238)	Parallel Lines Perpendicular Lines
Non-Linear Relationships (MA5.17NA) Graphs simple non-linear relationships.	
Graph simple non-linear relations, with and without the use of digital technologies (ACMNA296)	Parabolas Circles Exponential Graphs Revision: Plotting Linear Relationships Revision: Reading Graphs
Explore the connection between algebraic and graphical representations of relations such as simple quadratics, circles and exponentials using digital technologies as appropriate (ACMNA239)	Transforming Parabolas Transforming Parabolas - Translation Transforming Parabolas - Dilation and Reflection Transforming Circles Linear and Non-Linear Lines Solving Non-Linear Equations Revision: Solving Using Algebraic Methods Revision: Solving Equations Using Graphical Methods
Measurement and Geometry	
Area and Surface Area (MA5.18MG) Calculates the areas of composite shapes, and the surface areas of rectangular and triangular prisms.	
Calculate the areas of composite shapes (ACMMG216)	Area of Composite Shapes Revision: Area
Solve problems involving the surface areas of right prisms (ACMMG218)	Surface Area of Prisms
Numbers of Any Magnitude (MA5.19MG) interprets very small and very large units of measurement, uses scientific notation, and rounds to significant figures.	
Investigate very small and very large time scales and intervals (ACMMG219)	Time Scales

Express numbers in scientific notation (ACMNA210)	Scientific Notation
Right-Angled Triangles (Trigonometry) (MA5.110MG) Applies trigonometry, given diagrams, to solve problems, including problems involving angles of elevation and depression.	
Use similarity to investigate the constancy of the sine, cosine and tangent ratios for a given angle in right-angled triangles (ACMMG223)	
Apply trigonometry to solve right-angled triangle problems (ACMMG224)	Introduction to Trigonometry Calculating Unknown Sides Using Sine Calculating Unknown Sides Using Cosine Calculating Unknown Sides Using Tangent Inverse Trigonometric Functions Using Trigonometric Functions in Real World Applications Using Inverse Trigonometric Functions in Real World Applications
Solve right-angled triangle problems, including those involving angles of elevation and depression (ACMMG245)	Elevation and Depression
Properties of Geometrical Figures (MA5.111MG) Describes and applies the properties of similar figures and scale drawings.	
Use the enlargement transformation to explain similarity (ACMMG220)	Introduction to Similarity Similarity Tests Similarity and Angles Similarity and Multiple Triangles Angles and Triangles Angles and Quadrilaterals Angles and Congruence Transformations Review Congruence of Triangles Review Congruence of Quadrilaterals Review
Solve problems using ratio and scale factors in similar figures (ACMMG221)	Introduction to Scaling Magnitude Magnitude as a Ratio Scaling on Cartesian Planes
Statistics and Probability	
Single Variable Data Analysis (MA5.112SP) Uses statistical displays to compare sets of data, and evaluates statistical claims made in the media.	
Identify everyday questions and issues involving at least one numerical and at least one categorical variable, and collect data directly from secondary sources (ACMSP228)	Primary and Secondary Data Types of Data Revision: Sampling

<p>Construct back-to- back stem-and- leaf plots and histograms and describe data, using terms including 'skewed', 'symmetric' and 'bi-modal' (ACMSP282)</p>	<p>Shape and Mode Symmetry and Skew in Data Frequency Polygons Back-to-back Stem and Leaf Plots Revision: Frequency Tables</p>
<p>Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread (ACMSP283)</p>	<p>Effect of Shape on Mean and Median Measures of Centre in Grouped Data Comparing Data Sets Comparing Dot Plots Comparing Histograms Revision: Measures of Centre and Spread</p>
<p>Evaluate statistical reports in the media and other places by linking claims to displays, statistics and representative data (ACMSP253)</p>	<p>Evaluating Statistical Graphs: Making our Graph Evaluating Statistical Graphs: the Shape of the Graph Evaluating Statistical Reports and Claims: Data Collection Evaluating Statistical Reports and Claims: Data Reporting</p>
<p>Probability (MA5.113SP) Calculates relative frequencies to estimate probabilities of simple and compound events.</p>	
<p>Calculate relative frequencies from given or collected data to estimate probabilities of events involving 'and' or 'or' (ACMSP226)</p>	<p>Venn Diagrams Two-Way Tables Advanced Venn Diagrams and Two-Way Tables Relative Frequencies Using Relative Frequencies</p>