

Australian Mathematics Content Map

Education Perfect Maths is an online learning resources with scaffolding smart lessons aligned to the Australian Curriculum. This table aligns the lessons provided by Education Perfect mapped to the Australian Curriculum.

Year 7 Australian Curriculum	
Number and Algebra	
Number and place value	Education Perfect Lessons
Investigate index notation and represent whole numbers as products of powers of prime numbers (ACMNA149)	Multiples Factors Highest Common Factor Lowest Common Multiple Index Notation Prime & Composite Numbers Factor Trees Prime Factors and the HCF Prime Factors and the LCM Applying Prime Factors Review: Prime Numbers Review: Composite Numbers
Investigate and use square roots of perfect square numbers (ACMNA150)	Perfect Squares Square Roots Square Roots of Non-Perfect Squares Review: Square Numbers Review: Triangular Numbers
Apply the associative, commutative and distributive laws to aid mental and written computation (ACMNA151)	The Commutative Law The Associative Law The Distributive Law Using the Distributive Law
Compare, order, add and subtract integers (ACMNA280)	Positive Integers Negative Integers Comparing & Ordering Integers Adding & Subtracting Integers Activity: Place Value Codebreaking Review: Positive Integers Review: Negative Integers Review: Applying Addition and Subtraction Review: Applying Multiplication and Division

Real numbers	
Compare fractions using equivalence. Locate and represent positive and negative fractions and mixed numbers on a number line (ACMNA152)	Fraction Basics Equivalent Fractions Mixed Numbers Fraction Walls Fractions and Number Lines Comparing Fractions Comparing Fractions with the Same Denominator Review: Fractions Review: Fractions and Number Lines Review: Comparing Fractions Review: Equivalent Fractions Review: Simplifying Fractions
Solve problems involving addition and subtraction of fractions, including those with unrelated denominators (ACMNA153)	Adding Fractions with the Same Denominator Adding Fractions with a Different Denominator Adding Mixed Fractions with the Same Denominator Subtracting Fractions with the Same Denominator Subtracting Fractions with a Different Denominator Subtracting Mixed Fractions with the Same Denominator Subtracting Mixed Fractions with a Different Denominator Review: Adding Fractions with the Same Denominator Review: Subtracting Fractions with the Same Denominator Review: Adding Fractions with a Different Denominator Review: Subtracting Fractions with a Different Denominator
Multiply and divide fractions and decimals using efficient written strategies and digital technologies (ACMNA154)	Multiplying Fractions Numerically Multiplying Fractions Using Models Dividing Fractions Dividing Fractions by Simplifying Multiplying Decimals Dividing Decimals Review: Multiplying Decimals Review: Dividing Decimals
Express one quantity as a fraction of another, with and without the use of digital technologies (ACMNA155)	Using Fractions - Food Using Fractions - Money Using Fractions - Space
Round decimals to a specified number of decimal places (ACMNA156)	Introduction to Decimals Adding Decimals Subtracting Decimals Rounding Decimals Review: Introduction to Decimals Review: Adding Decimals Review: Subtracting Decimals Review: Rounding Decimals

<p>Connect fractions, decimals and percentages and carry out simple conversions (ACMNA157)</p>	<p>Comparing Fractions Converting Between Fractions and Decimals Converting Between Percentages and Fractions Application: Town Planning Activity: Real Number Dominoes Review: Percentages and Decimals Review: Percentages and Fractions Review: Converting Between Fractions and Decimals Review: Converting Between Percentages and Fractions</p>
<p>Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies. (ACMNA158)</p>	<p>Introduction to Percentages Using Percentages Problem Solving: Boxing Day Bonanza Review: Percentages Review: Using Percentages</p>
<p>Recognise and solve problems involving simple ratios (ACMNA173)</p>	<p>Ratios</p>
<p>Money and financial mathematics</p>	
<p>Investigate and calculate 'best buys', with and without digital technologies (ACMNA174)</p>	<p>Uses of Financial Mathematics Cost per Item Unit Pricing Budgeting Calculating a Best Buy: Choosing a Usage Plan Review: Introduction to Percentages Review: Using Percentages Review: Discounts Review: Calculating Discounts</p>
<p>Patterns and algebra</p>	
<p>Introduce the concept of variables as a way of representing numbers using letters (ACMNA175)</p>	<p>Welcome to Algebra Substitution Arithmetic in Algebra</p>
<p>Create algebraic expressions and evaluate them by substituting a given value for each variable (ACMNA176)</p>	<p>Simplifying Addition in Algebra Simplifying Subtraction in Algebra Simplifying Multiplication in Algebra Simplifying Division in Algebra Substitution in Algebraic Expressions Evaluating Algebraic Expressions Using Formulas Finding Formulas</p>

<p>Extend and apply the laws and properties of arithmetic to algebraic terms and expressions (ACMNA177)</p>	<p>Order of Operations in Algebra Order of Operations in Algebraic Equations Translating Between Word Descriptions and Algebraic Expressions Translating Between Authentic Situations and Algebraic Expressions Addition Subtraction Multiplication Division Order of Operations Review: Order of Operations Review: Patterns Review: Patterns and Tables</p>
<p>Linear and non-linear relationships</p>	
<p>Given coordinates, plot points on the Cartesian plane, and find coordinates for a given point (ACMNA178)</p>	<p>Introduction to Cartesian Planes Coordinates Plotting on a Cartesian Plane Extension: Linear and Non-Linear Lines Extension: Multiple Lines on Cartesian Planes Problem Solving: Applications of Cartesian Planes Activity: Sinking Ships with Coordinates Review: Number Lines, Axes and Coordinates Review: Quadrants of Cartesian Planes Review: Coordinates</p>
<p>Solve simple linear equations (ACMNA179)</p>	<p>Balancing Equations Concrete Models Flow Charts Visual Methods for Solving Linear Equations Solving One-Step Linear Equations Solving Two-Step Linear Equations Solving Linear Equations with Brackets Checking Solutions Extension: Plotting Linear Equations in Context Problem Solving: Opening a New Aquarium Activity: Physically Balancing Equations Review: Order of Operations Review: Applying the Order of Operations</p>
<p>Investigate, interpret and analyse graphs from authentic data (ACMNA180)</p>	<p>Drawing Graphs Reading Graphs Analysing Graphs</p>

Measurement and Geometry	
Using units of measurement	
Establish the formulas for areas of rectangles, triangles and parallelograms, and use these in problem-solving (ACMMG159)	Units of Length Units of Mass Units of Capacity Perimeter Finding Perimeter of Composite Shapes Area of Rectangles & Squares Area of Triangles Area of Parallelograms Area of Composite Shapes Review: Understanding the Area of a Rectangle Review: Calculating the Area of a Rectangle Review: Units of Measurement Review: Converting Units of Length Review: Comparing Units of Length Review: Perimeter Review: Perimeter of Composite Shapes
Calculate volumes of rectangular prisms (ACMMG160)	Volume of Rectangular Prisms Volume of Composite Shapes Review: Units of Capacity Review: Applications of Converting Units of Capacity Review: Units of Mass
Shape	
Draw different views of prisms and solids formed from combinations of prisms (ACMMG161)	Introduction to Solids Prisms Pyramids Curved Solids Extension: Polyhedra Extension: Composite Shapes Extension: Platonic Solids Activity: Geoboard Tetris Activity: Playdough Prisms

Location and transformation	
Describe translations, reflections in an axis and rotations of multiples of 90° on the Cartesian plane using coordinates. Identify line and rotational symmetries (ACMMG181)	Line Symmetry Rotational Symmetry Introduction to Cartesian Planes Translation Reflection Rotation Extension: Transformations Review: Translation on a Grid Review: Reflection on a Grid Review: Rotation on a Grid Review: Introduction to Cartesian Coordinates
Geometric reasoning	
Identify corresponding, alternate and co-interior angles when two straight lines are crossed by a transversal (ACMMG163)	Introduction to Angles Angles around a Point Activity: Angles Scavenger Hunt Activity: Tessellations Review: Points Review: Angles Review: Using Angles
Investigate conditions for two lines to be parallel and solve simple numerical problems using reasoning (ACMMG164)	Parallel Lines Angles around Parallel Lines Review: Lines
<p>Demonstrate that the angle sum of a triangle is 180° and use this to find the angle sum of a quadrilateral (ACMMG166)</p> <p>Classify triangles according to their side and angle properties and describe quadrilaterals (ACMMG165)</p>	Types of Triangles Angles in Triangles Quadrilaterals Angles in Quadrilaterals Applying Rules to Quadrilaterals Extension: Triangles Extension: Geometric Reasoning Activity: Triangles in the Real World Review: Triangles Review: Quadrilaterals
Statistics and Probability	
Chance	
Construct sample spaces for single-step experiments with equally likely outcomes (ACMSP167)	Introduction to Likelihood Introduction to Chance and Probability Probability Terminology Probability as a Fraction Probability as a Decimal and a Percentage Review: Likelihood Review: Proportional Reasoning

<p>Assign probabilities to the outcomes of events and determine probabilities for events (ACMSP168)</p>	<p>Types of Probability Calculating Probability Experimental Probability Experimental Probability Converting Between Fractions and Decimals Converting Between Percentages and Fractions Review: Fractions, Decimals and Percentages Review: Theoretical Probability Review: Experimental Probability</p>
<p>Data representation and interpretation</p>	
<p>Identify and investigate issues involving numerical data collected from primary and secondary sources (ACMSP169)</p>	<p>Introduction to Data Collecting Data Analysing Numerical Data</p>
<p>Construct and compare a range of data displays including stem-and-leaf plots and dot plots (ACMSP170)</p>	<p>Displaying Data Stem and Leaf Plots Dot Plots and Column (Bar) Graphs Histograms Pie Charts and Divided Bar Graphs Line Graphs Pick your Display Method Extension: Data Representation and Interpretation Extension: Stem and Leaf Plots Extension: Dot Plots Activity: Lolly Graphs Review: Column (Bar) Graphs Review: Side-by-Side Column Graphs Review: Tallies and Tables Review: Reading Graphs and Tables</p>
<p>Calculate mean, median, mode and range for sets of data. Interpret these statistics in the context of data (ACMSP171)</p>	<p>The Mean The Median The Mode Comparing Measures of Centre The Range Calculating Measures of Centre and Spread Problem Solving: Scrambled Statistics</p>
<p>Describe and interpret data displays using median, mean and range (ACMSP172)</p>	<p>Finding Measures of Centre and Spread in Data Displays Outliers Review: Misleading Data and Graphs</p>