

iMaths 7 Topics and Australian Curriculum match



www.imaths.com.au

iMaths 7 Australian Curriculum match

The tables on these pages list the three content strands, their associated sub-strand descriptions of the Australian Curriculum, and the Topics from *iMaths 7 Student Book* that match these descriptions.

Strand	Sub-strand	Student Book Topics	
Number and Algebra	Number and place value Investigate index notation and represent whole numbers as products of powers of prime numbers. (ACMNA149)	NA17 Index notation NA16 Factor trees	
	Investigate and use square roots of perfect square numbers. (ACMNA150)	NA18 Square roots	
	Apply the associative, commutative and distributive laws to aid mental and written computation. (ACMNA151)	NA19 The distributive law	
	Compare, order, add and subtract integers. (ACMNA280)	NA1 Positive and negative integers NA2 Add and subtract integers	
	Real numbers Compare fractions using equivalence. Locate and represent fractions and mixed numerals on a number line. (ACMNA152)	NA22 Equivalent fractions NA23 Improper fractions	
	Solve problems involving addition and subtraction of fractions, including those with unrelated denominators. (ACMNA153)	NA24 Fraction addition NA25 Fraction subtraction	
	Multiply and divide fractions and decimals using efficient written strategies and digital technologies. (ACMNA154)	NA3 Decimal multiplication NA4 Decimal division NA5 Decimals – the four operations NA26 Multiply fractions NA27 Divide fractions	
	Express one quantity as a fraction of another, with and without the use of digital technologies. (ACMNA155)	NA10 Expressing percentages	
	Round decimals to a specified number of decimal places. (ACMNA156)	NA6 Rounding decimals	
	Connect fractions, decimals and percentages and carry out simple conversions. (ACMNA157)	NA28 Renaming percentages as fractions	
	Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies. (ACMNA158)	NA10 Expressing percentages	
	Recognise and solve problems involving simple ratios. (ACMNA173)	NA7 Ratio and proportion NA8 Rates	
	Money and financial mathematics Investigate and calculate 'best buys', with and without digital technologies. (ACMNA174)	NA9 Best buys	
	Patterns and algebra Introduce the concept of variables as a way of representing numbers using letters. (ACMNA175)	NA13 Patterns and general rules NA14 General trends NA15 Extrapolation	

Strand	Sub-strand	Student Book Topics	
Number and Algebra	Create algebraic expressions and evaluate them by substituting a given value for each variable. (ACMNA176)	NA13 Patterns and general rules NA14 General trends NA15 Extrapolation MG12 Area of combination shapes	MG3 Area of composite rectangles MG4 Volume of rectangular prisms MG11 Area of triangles
	Extend and apply the laws and properties of arithmetic to algebraic terms and expressions. (ACMNA177)	NA20 Order of operations	
	Linear and non-linear relationships Given coordinates, plot points on the Cartesian plane, and find coordinates for a given point. (ACMNA178)	NA11 Line Graphs NA12 Ordered pairs NA15 Extrapolation MG10 Transformations with coordin	nates
	Solve simple linear equations. (ACMNA179)	NA21 Backtracking NA29 Balancing equations NA30 Equations solve problems	
	Investigate, interpret and analyse graphs from authentic data. (ACMNA 180)	NA11 Line graphs	
Measurement and Geometry	Using units of measurement Establish the formulas for areas of rectangles, triangles and parallelograms and use these in problem solving. (ACMMG159)	MG11 Area of triangles MG12 Area of combination shapes	
	Calculate volumes of rectangular prisms. (ACMMG160)	MG4 Volume of rectangular prisms MG5 Volume of composite prisms	
	Shape Draw different views of prisms and solids formed from combinations of prisms. (ACMMG161)	MG6 Views of 3D objects MG7 Face, edge, vertex	
	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)	MG9 Reflection, translation, rotation MG10 Transformations with coordin	
	Geometric reasoning Identify corresponding, alternate and co-interior angles when two parallel straight lines are crossed by a transversal. (ACMMG163)	MG2 Angles and parallel lines	
	Investigate conditions for two lines to be parallel and solve simple numerical problems using reasoning. (ACMMG164)	MG2 Angles and parallel lines	
	Demonstrate that the angle sum of a triangle is 180° and use this to find the angle sum of a quadrilateral. (ACMMG166)	MG1 Angle sum of 2D shapes	
	Classify triangles according to their side and angle properties and describe quadrilaterals. (ACMMG165)	MG8 Classify quadrilaterals MG13 Classify triangles	

Strand	Sub-strand	Student Book Topics
Statistics and Probability	Chance Construct sample spaces for single-step experiments with equally likely outcomes. (ACMSP167)	SP8 Theoretical probability
	Assign probabilities to the outcomes of events and determine probabilities for events. (ACMSP168)	SP8 Theoretical probability SP9 Experimental probability
	Data representation and interpretation Identify and investigate issues involving numeral data collected from primary and secondary sources. (ACMSP169)	SP1 Discrete and continuous data SP4 Histograms
	Construct and compare a range of data displays including stem-and-leaf plots and dot plots. (ACMSP170)	SP2 Dot plots SP3 Stem and leaf plots
	Calculate mean, median, mode and range for sets of data. Interpret these statistics in the context of data. (ACMSP171)	SP5 Average – the mean SP6 Mean, median and mode
	Describe and interpret data displays and the relationship between the median and mean. (ACMSP172)	SP7 Mean vs median

The content strand descriptions © Australian Curriculum, Assessment and Reporting Authority 2012. This material is reproduced with the permission of ACARA. ACARA neither endorses nor verifies the accuracy of the information provided and accepts no responsibility for incomplete or inaccurate information. You can find the unaltered and most up to date version of this material at http://www.australiancurriculum.edu.au/Home