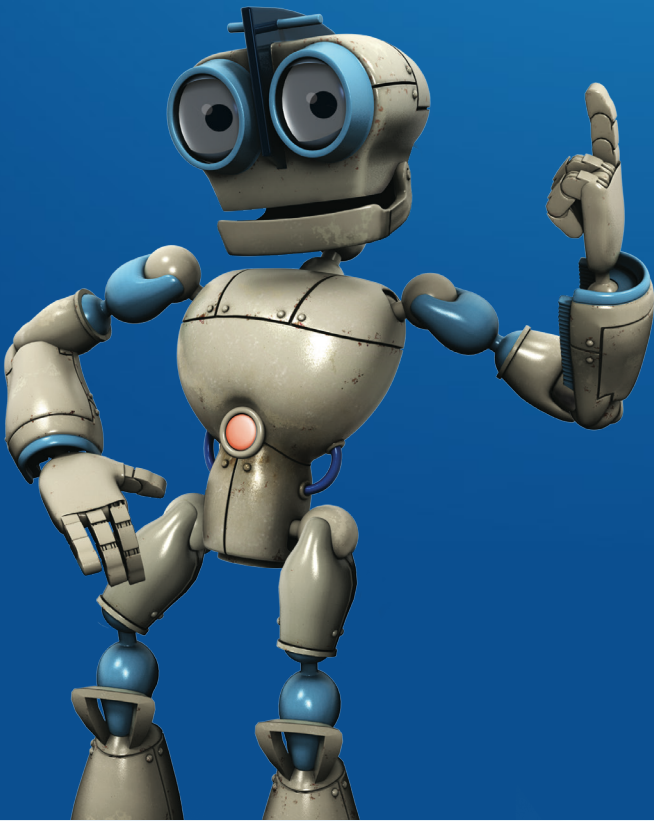# iMaths

iMaths Topics and NSW Syllabus Match

iMaths currently aligns with Australian Curriculum Version 8.4 and is matched to the equivalent version of the NSW Syllabus.

Maths Trek is our new primary maths program which has been created for the Australian Curriculum Version 9.0. It is matched to the new NSW Syllabus and will be ready for use in classrooms in 2024.

firefly EDUCATION

iMaths F NSW Syllabus Match

The tables on these pages list the content strands, their associated sub-strands and content descriptions from the New South Wales Syllabus, and the Topics from *iMaths F Student Book* that match these descriptions.

Strand	NSW Syllabus Outcomes Early Stage 1 (K)	iMaths reference	Examples
Working Mathematically	Describes mathematical situations using everyday language, actions, materials and informal recordings. (MAe-1WM)	This outcome is covered in: • Topics • iMaths song tracks 1–33 • Daily Number Workout concepts 1–4 • Investigations – especially in the 'Making connections' section.	Investigation 11, Step 4 (Teacher Book): **Making connections** Discuss the following question to encourage students to apply what they have learned in this Investigation to other everyday situations. *When do you and your family or friends need to share something equally? (Eg pizza, birthday cake, cards in games, marbles.)*
	Uses objects, actions, technology and/or trial and error to explore mathematical problems. (MAe-2WM)	This outcome is covered in: • Topics • Daily Number Workout concepts 1–4 • Investigations – especially in the 'Explore and play' section.	Investigation 5, Explore and play (Teacher Book): **Shape barrier game** – a game for 2 students) Provide each student with identical plastic or paper 2D shapes. Place a barrier, such as a stand up book, between them. Player one arranges shapes into a design or picture. Then they describe it to player 2, who tries to copy it. Check to see if the copy is correct and swap roles.
	Uses concrete materials and/or pictorial representations to support conclusions. (MAe-3WM)	This outcome is covered in: • Topics • Daily Number Workout concepts 1–4 • Investigations – especially in the 'Communicating and reflecting' section.	Daily Number Workout, concept 4 (Teacher Book): **One more** Students need 10 counters and the ten frame. Teacher calls out a number less than 10 for students to show on their ten frame. Ask questions to encourage students to notice how many spaces are filled and how many remain empty. What arrangements of dots do they see? Now ask students to add one counter. Ask what the new number is and discuss the changes in the pattern.

Strand	NSW Syllabus Outcomes	Student Book Topics		Investigations, iMaths Songs, Daily Number Workouts
Number and Algebra	Counts to 30, and orders, reads and represents numbers in the range 0 to 20. (MAe-4NA)	NA2 Few and many NA4 Groups of 1 NA5 Groups of 2 NA6 Groups of 3 NA7 Fruit face count NA8 Food count at the zoo NA9 Groups of 4 NA10 Groups of 5 NA11 Traffic count NA13 Pond count NA15 Which bowls are the same? NA16 Worm count NA17 Truck trail NA20 Groups of 6 NA21 Groups of 7 NA22 Groups of 8 NA23 Cookie the Clown – draw and count NA24 Groups of 9 NA25 Groups of 10 NA26 Leo the Lion dot to dot NA27 Missing numbers countdown	NA28 One more NA29 One less NA30 Ladybug number match NA31 Show more, show less NA32 Water trek NA34 Little Red Riding Hood number track NA35 Missing numbers NA38 Crocodile swamp board game NA39 Number strips NA40 Number train NA41 Spotty dragon – draw and count NA42 Count to 20 NA43 Cheese hunt number maze NA44 Doggy find your bone board game NA45 Shark attack – numbers 11 to 20 NA46 Tomato pots – numbers 11 to 20 NA60 Money *	Investigations: 1–12 iMaths Songs: 2–9 Daily Number Workout: Concept 1, 2 & 3 Activities

* Available at imathsonline.com.au

Strand	NSW Syllabus Outcomes	Student Book Topics		Investigations, iMaths Songs, Daily Number Workouts
Number and Algebra	Combines, separates and compares collections of objects, describes using everyday language and records using informal methods. (MAe-5NA)	NA12 Smarty cake match up NA14 Snakes alive make 5 NA28 One more NA29 One less NA36 10 spot Humpty NA47 How many altogether? NA48 Colour and count NA49 Addition stories NA50 Little Bo Peep counts her sheep	NA51 How many more? NA52 Ten frames NA53 How many left? NA54 Take away stories NA55 Jack and Jill – who has more pails? NA56 How many cookies? NA57 How many counters?	Investigations: 2, 4, 7, 8, 10, 11, 12 Daily Number Workout: Concept 4 activities
	Groups, shares and counts collections of objects, describes using everyday language and records using informal methods. (MAe-6NA)	NA58 Sharing equally NA59 Three little pigs share equally		Investigation: 11 iMaths Songs: 10, 11
	Describes two equal parts as halves. (MAe-7NA)	NA12 Smarty cake match up NA61 Fractions *		Investigations: 4
	Recognises, describes and continues repeating patterns. (MAe-8NA)	NA1 Same and different NA3 Fishy patterns NA18 See the pattern NA19 Turtle patterns NA33 Monster shape sort NA37 Animal patterns		Investigations: 1, 4, 6, 7, 8, 10, 12
Measurement and Geometry	Describes and compares lengths and distances using everyday language. (MAe-9MG)	MG15 Sausage strings – how long? MG16 Short and long MG17 Circus clowns – short and tall		Investigations: 2, 4, 10
	Describes and compares areas using everyday language. (MAe-10MG)	MG13 Budgies in a row – smallest to biggest MG14 Big fish, small fish		Investigations: 4, 11, 12 iMaths Songs: 23
	Describes and compares the capacities of containers and the volumes of objects or substances using everyday language. (MAe-11MG)	MG19 Holds more, holds less		Investigations: 4, 9, 10
	Describes and compares masses of objects using everyday language. (MAe-12MG)	MG18 Comparing mass		Investigations: 4, 9, 10 iMaths Songs: 22
	Sequences events, using everyday language to describe the durations of activities, and reads hour time on clocks. (MAe-13MG)	MG3 My day – o'clock time MG1 Hungry Caterpillar day by day MG2 Steggy dinosaur days of the week MG20 Clocks		Investigations: 1, 3, 11 iMaths Songs: 12, 13, 14, 15, 16, 17

* Available at imathsonline.com.au

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations, iMaths Songs, Daily Number Workouts
Measurement and Geometry	Manipulates, sorts and represents three-dimensional objects and describes them using everyday language. (MAe-14MG)	MG11 Match 3D objects MG12 3D object search	Investigations: 4, 6, 9
	Manipulates, sorts and describes representations of two-dimensional shapes including circles, triangles, squares and rectangles using everyday language. (MAe-15MG)	MG5 Triangles MG6 Squares MG7 Circles MG8 Rectangles MG9 Little Miss Muffet shape search MG10 Match 2D shapes	Investigations: 4, 5, 6, 7, 9 iMaths Songs: 20, 21
	Describes position and gives and follows simple directions using everyday language. (MAe-16MG)	MG4 Where at the beach?	Investigations: 8, 9, 11 iMaths Songs: 25, 26, 27, 28, 29, 30, 31, 32
Statistics and Probability	Represents data and interprets data displays made from objects and pictures. (MAe-17SP)	SP1 What do I spy? SP2 Favourite indoor activities SP3 Boat sort SP4 Favourite playtime activity SP5 Hair colour tally SP6 Who's on the bus?	Investigations: 1, 2, 3, 4, 5, 7, 10, 12

iMaths 1 NSW Syllabus Match

The tables on these pages list the content strands, their associated sub-strands and content descriptions from the New South Wales Syllabus, and the Topics from *iMaths 1 Student Book* that match these descriptions.

Strand	NSW Syllabus Outcomes Stage 1 (Year 1)	iMaths reference	Examples
Working Mathematically	Describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols. (MA1-1WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially when presenting results.	Investigation 10, Step 5 The presentation: Display your town plan and model. Name the 2D shapes and 3D objects you used to make your model. Explain why you chose these. Point out the special features of your town.
	Uses objects, diagrams and technology to explore mathematical problems. (MA1-2WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Using maths' section.	Investigation 3, Step 2 Guess and check: In groups, collect four different containers. Draw pictures of your containers on your container table from Tear-out 1.3. Label each picture. Guess how many cups of water will fill each container. Record your guesses on Tear-out 3.1. Now test your guess. Topics MG2 and MG3: Using diagrams to solve real-life problems.
	Supports conclusions by explaining or demonstrating how answers were obtained. (MA1-3WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Reasoning and reporting' section.	Investigation 5, Step 5 Reporting back: Describe the results of the ramp tests. What was your group's best distance? Explain why? Was this distance more or less than a metre? Who is the class ramp champ, and why?

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Applies place value, informally, to count, order, read and represent two- and three-digit numbers. (MA1-4NA)	NA1 Count in ones NA5 Read and write two-digit numerals NA6 Show numbers in different ways NA7 Tens and ones (place value) NA8 Show the number NA9 One more, one less, ten more, ten less NA10 Regroup tens and ones NA28 Australian coins NA29 Big coins, little coins NA33 Round to 10 *	Investigations: 1, 2, 5, 6, 7, 11, 12
	Uses a range of strategies and informal recording methods for addition and subtraction involving one- and two-digit numbers. (MA1-5NA)	NA11 Addition stories NA12 How to set out addition NA13 Show, say and write addition NA15 Addition facts NA16 Addition to two digits NA17 Introducing take away NA18 Show single-digit subtraction NA19 How to set out subtraction NA20 First subtraction facts NA21 Add and take away are related NA22 Backtracking	Investigations: 2, 4, 6, 7, 8, 9, 12

* Available at imathsonline.com.au

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Uses a range of mental strategies and concrete materials for multiplication and division. (MA1–6NA)	NA2 Count in twos NA3 Count in fives NA4 Count in tens NA23 Equal groups – multiplication NA24 Multiplication NA25 Sharing equally – division NA26 Division	Investigations: 7, 9, 11, 12
	Represents and models halves, quarters and eighths. (MA1–7NA)	NA27 Fractions	Investigation: 9
	Creates, represents and continues a variety of patterns ith numbers and objects. (MA1–8NA)	NA14 Turnarounds NA21 Add and take away are related NA22 Backtracking NA30 Keep the pattern going NA31 Missing numbers NA32 What's the gap?	Investigations: 2, 4, 6, 7, 8
Measurement and Geometry	Measures, records, compares and estimates lengths and distances using uniform informal units, metres and centimetres. (MA1–9MG)	MG1 Measuring length MG2 How long is a metre?	Investigations: 5, 11
	Measures, records, compares and estimates areas using uniform informal units. (MA1–10MG)	M17 Area *	
	Measures, records, compares and estimates volumes and capacities using uniform informal units. (MA1–11MG)	MG3 How much does it hold? MG4 Measuring with containers	Investigation: 3
	Measures, records, compares and estimates the masses of objects using uniform informal units. (MA1–12MG)	MG5 How heavy is it?	Investigation: 5
	Describes, compares and orders durations of events, and reads half– and quarter–hour time. (MA1–13MG)	MG6 Clock time – hours MG7 Clock time – half past MG8 Days, weeks, months MG9 Calendars and months	Investigations: 1, 6, 9
	Sorts, describes, represents and recognises familiar three-dimensional objects including cones, cubes, cylinders, spheres and prisms. (MA1–14MG)	MG12 Sort 3D objects MG13 Classify 3D objects	Investigation: 10

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Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Measurement and Geometry	Manipulates, sorts, represents, describes and explores two-dimensional shapes including quadrilaterals, pentagons, hexagons and octagons. (MA1–15MG)	MG10 Classify 2D shapes MG11 Which 2D shape is that? MG18 More 2D shapes *	Investigations: 10, 11
	Represents and describes the position of objects in everyday situations and on maps. (MA1–16MG)	MG14 In front, behind, between MG15 Here, there and everywhere MG16 Directions	Investigation: 10
Statistics and Probability	Gathers and organises data, displays the data in lists, tables and picture graphs, and interprets the results. (MA1–17SP)	SP3 Collecting data SP4 Lists and tables SP5 Picture graphs SP6 Object graphs SP7 Birthday graphs SP8 Class height graph	Investigations: 1, 3, 6
	Recognises and describes the element of chance in everyday events. (MA1–18SP)	SP1 Chance SP2 What is possible?	Investigation: 1

* Available at imathsonline.com.au

iMaths 2 NSW Syllabus Match

The tables on these pages list the content strands, their associated sub-strands and content descriptions from the New South Wales Syllabus, and the Topics from *iMaths 2 Student Book* that match these descriptions.

Strand	NSW Syllabus Outcomes Stage 1 (Year 2)	iMaths reference	Examples
Working Mathematically	Describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols. (MA1-1WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially when recording data, presenting results and writing conclusions.	Investigation 2, Step 6 Value for money: Present and describe the plan for your day at the show, your wish list and your final budget. How much did you spend? Was there any change? How much? Justify your final choices.
	Uses objects, diagrams and technology to explore mathematical problems. (MA1-2WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Using maths' section.	Investigation 1, Step 5 Test it out: Measure and mark a distance of 2 metres from the end of your ramp. Take turns to roll your marbles down the ramp. Measure and record the distance the marble travels each time. How can you make the marble travel further? Topic MG12: Using diagrams to solve real-life problems.
	Supports conclusions by explaining or demonstrating how answers were obtained. (MA1-3WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Reasoning and reporting' section.	Investigation 10, Step 5 Kilograms or litres?: Which is best – juicing the oranges or buying the orange juice? Give reasons for your choice.

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Applies place value, informally to count, order, read and represent two- and three-digit numbers. (MA1-4NA)	NA1 Tens and ones with blocks NA2 Showing numbers beyond 100 NA4 Place value to 1000 NA5 Number lines to 1000 NA6 Number expanders to 1000 NA7 Regrouping numbers to 1000 NA8 Place value to 1000 with an abacus NA9 Expanded notation to 1000 NA26 Comparing coins NA27 Do I have enough money?	Investigations: 2, 3, 4, 6, 9, 10, 12
	Uses a range of strategies and informal recording methods for addition and subtraction involving one- and two-digit numbers. (MA1-5NA)	NA10 Addition facts NA11 Mental strategies for addition NA12 Written strategies for addition NA13 Subtraction facts NA14 Mental strategies for subtraction NA15 Written strategies for subtraction NA16 Backtracking NA17 The turnaround law NA24 Make a $1 total NA25 Coins and notes	Investigations: 2, 4, 6, 8, 9, 10, 12 Mental computation strategies and practice
	Uses a range of mental strategies and concrete materials for multiplication and division. (MA1-6NA)	NA18 Multiplication NA19 Multiplication problem solving NA20 Groups and arrays NA21 Division	Investigations: 4, 8, 9, 10, 11, 12

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Represents and models halves, quarters and eighths. (MA1-7NA)	NA22 Models and symbols for fractions NA23 Fractions as division	Investigations: 8, 9, 11
	Creates, represents and continues a variety of patterns with numbers and objects. (MA1-8NA)	NA3 Counting on number lines beyond 100 NA16 Backtracking NA17 The turnaround law NA28 Repeating patterns NA29 Growing patterns NA30 Odd and even	Investigations: 3, 4, 9, 12
Measurement and Geometry	Measures, records, compares and estimates lengths and distances using uniform informal units, metres and centimetres. (MA1-9MG)	MG1 Measurement with metres MG2 Measurement with centimetres	Investigations: 1, 4, 7
	Measures, records, compares and estimates areas using uniform informal units. (MA1-10MG)	MG3 Area	Investigation: 7
	Measures, records, compares and estimates volumes and capacities using uniform informal units. (MA1-11MG)	MG4 Litres	Investigations: 9, 10, 11, 12
	Measures, records, compares and estimates the masses of objects using uniform informal units. (MA1-12MG)	MG5 Comparing mass MG6 Kilograms	Investigations: 10, 11
	Describes, compares and orders durations of events, and reads half- and quarter-hour time. (MA1-13MG)	MG7 Clocks – quarter past, half past MG8 Clocks – quarter past, quarter to MG9 Calendars MG10 Months and seasons	Investigations: 2, 4, 12
	Sorts, describes, represents and recognises familiar three-dimensional objects including cones, cubes, cylinders, spheres and prisms. (MA1-14MG)	MG13 Classify 3D objects MG14 Making 3D objects MG15 Faces, edges and corners MG16 Drawing 3D objects	Investigations: 1, 5

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Measurement and Geometry	Manipulates, represents, sorts, describes and explores two-dimensional shapes including quadrilaterals, pentagons, hexagons and octagons. (MA1–15MG)	MG11 Classify 2D shapes MG12 Construct 2D shapes MG20 Flip, slide, turn	Investigations: 1, 5
	Represents and describes the positions of objects in everyday situations and on maps. (MA1–16MG)	MG17 Here, there and everywhere MG18 Maps MG19 Map references	Investigations: 1, 6
Statistics and Probability	Gathers and organises data, displays the data in lists, tables and picture graphs, and interprets the results. (MA1–17SP)	SP2 Collecting data SP3 Column graphs SP4 Picture graphs SP5 Interpreting graphs	Investigations: 1, 5, 7, 8, 9, 10
	Recognises and describes the element of chance in everyday events. (MA1–18SP)	SP1 Probability	Investigation: 3

iMaths 3 NSW Syllabus Match

The tables on these pages list the content strands, their associated sub-strands and content descriptions from the
New South Wales Syllabus, and the Topics from *iMaths 3 Student Book* that match these descriptions.

Strand	NSW Syllabus Outcomes Stage 2 (Year 3)	iMaths reference	Examples
Working Mathematically	Uses appropriate terminology to describe, and symbols to represent, mathematical ideas. (MA2–1WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially when recording data, presenting results and writing conclusions.	Investigation 4, Step 5 Plan your slides: Discuss how best to show your fraction in your slide show. Use **BLM 4.1** *Slide show storyboard* to sketch the photos you will use to show your fraction. Under each sketch, write the words you will use to explain your photos.
	Selects and uses appropriate mental or written strategies, or technology, to solve problems. (MA2–2WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Using maths' section.	Investigation 11, Step 2 Who will you buy for?: You have $1000 to spend on gifts for 10 people. Try to spend as close to this amount as possible. Topics NA12 and NA13: Using mental and written strategies to solve real-life problems.
	Checks the accuracy of a statement and explains the reasoning used. (MA2–3WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Reasoning and reporting' section.	Investigation 3, Step 6 Explain how you got close to one kilogram: Explain how you used the objects in your *Kilogram quest table* to find a total mass close to one kilogram. Show how you checked the totals and explain your number sentence.

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Applies place value to order, read and represent numbers of up to five digits. (MA2–4NA)	NA1 Odd and even NA2 Place value to thousands NA3 Place value to ten thousands NA4 Number expanders NA5 Expanded notation NA6 Round to 10 NA7 Estimation strategies	Investigations: 7, 11
	Uses mental and written strategies for addition and subtraction involving two-, three-, four- and five-digit numbers. (MA2–5NA)	NA8 Addition and subtraction facts NA9 Mental strategies for addition NA10 Written strategies for addition NA11 Mental strategies for subtraction NA12 Written strategies for subtraction NA13 Subtraction to three digits NA14 Backtracking NA29 Australian currency NA30 Equivalent values of money NA31 Tendering cash NA32 Giving change	Investigations: 3, 6, 10, 11 Mental computation strategies and practice

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Uses mental and informal written strategies for multiplication and division. (MA2–6NA)	NA15 Multiplication facts 2, 3 NA16 Multiplication facts 5, 10 NA17 Multiply by 10 NA18 Multiplication problem solving NA19 Division facts 2, 3 NA20 Division facts 5, 10 NA21 Division problem solving NA22 The turnaround and grouping rules NA23 The distributive law NA24 Multiplication 2-digit x 1-digit (no regrouping) NA25 Multiplication 2-digit x 1-digit (with regrouping) NA33 Simple budgets	Investigations: 3, 5, 6, 8, 11
	Represents, models and compares commonly used fractions and decimals. (MA2–7NA)	NA26 Models and symbols for fractions NA27 Fractions on a number line NA28 Fractions as division	Investigation: 4
	Generalises properties of odd and even numbers, generates number patterns and completes simple number sentences by calculating missing values. (MA2–8NA)	NA14 Backtracking NA34 Number patterns	Investigations: 8, 11
Measurement and Geometry	Measures, records, compares and estimates lengths, distances and perimeters in metres, centimetres and millimetres, and measures and records temperatures. (MA2–9MG)	NA1 Odd and even MG1 Measurement with metres MG2 Measurement with centimetres	Investigations: 1, 9, 10
	Measures, records, compares and estimates areas using square centimetres and square metres. (MA2–10MG)	MG5 Area MG17 Measuring areas *	Investigation: 7
	Measures, records, compares and estimates volumes and capacities using litres, millilitres and cubic centimetres. (MA2–11MG)	MG4 Litres and millilitres MG18 Volume	Investigation: 9
	Measures, records, compares and estimates the masses of objects using kilograms and grams. (MA2–12MG)	MG3 Grams and kilograms	Investigations: 1, 3
	Reads and records time in one-minute intervals and converts between hours, minutes and seconds. (MA2–13MG)	MG6 Clocks – past the hour MG7 Clocks – to the hour MG8 Seconds, minutes, hours, days MG9 Days, weeks, months, years MG10 Calendars	Investigations: 2, 9, 10

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Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Measurement and Geometry	Makes, compares, sketches and names three-dimensional objects including prisms, pyramids, cylinders, cones and spheres and describes their features. (MA2–14MG)	MG11 3D objects	Investigation: 2
	Manipulates, identifies and sketches two- dimensional shapes, including special quadrilaterals, and describes their features. (MA2–15MG)	MG15 Symmetry MG16 Flip, slide, turn MG19 2D shapes *	Investigations: 8, 12
	Identifies, describes, compares and classifies angles. (MA2–16MG)	MG12 Angles	Investigation: 12
	Uses simple maps and grids to represent position and follow routes, including using compass directions. (MA2–17MG)	MG13 Map references MG14 Direction – turns	Investigation: 12
Statistics and Probability	Selects appropriate methods to collect data, and constructs, compares, interprets and evaluates data displays, including tables, picture graphs and column graphs. (MA2–18SP)	SP2 Organising data SP3 Column graphs SP4 Picture graphs SP5 Interpreting graphs	Investigations: 1, 5, 9
	Describes and compares chance events in social and experimental contexts. (MA2–19SP)	SP1 Probability	Investigation: 9

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iMaths 4 NSW Syllabus Match

The tables on these pages list the content strands, their associated sub–strands and content descriptions from the New South Wales Syllabus, and the Topics from *iMaths 4 Student Book* that match these descriptions.

Strand	NSW Syllabus Outcomes Stage 2 (Year 4)	iMaths reference	Examples
Working Mathematically	Uses appropriate terminology to describe, and symbols to represent, mathematical ideas. (MA2–1WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially when recording data, presenting results and writing conclusions.	**Investigation 5, Step 4 Run and jump:** Measure and record 3 jumps from each run up mark. Make sure you rest before you move from mark to mark. You need to be fresh for each mark, or fatigue could affect your result. Record your results in a table, in metres, using a decimal point.
	Selects and uses appropriate mental or written strategies, or technology, to solve problems. (MA2–2WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Using maths' section.	**Investigation 8, Step 4 Design the stadium:** Decide how many people you want on each side of the stadium. Calculate how many blocks of seats you will need for 2000 spectators and how many spectators will be seated in each block. You will need to think about how many seats will be in each row and how many rows in each block. Topics NA17 and NA18: Using mental and written strategies to solve real-life problems involving multiplication.
	Checks the accuracy of a statement and explains the reasoning used. (MA2–3WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Reasoning and reporting' section.	**Investigation 12, Step 6 Prove the fairness:** Explain why your dice is fair. Use your net, table and any other proof you have. Include statements about dependent and independent events to help you explain.

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Applies place value to order, read and represent numbers of up to five digits. (MA2–4NA)	NA2 Place value beyond ten thousands NA3 Expanded notation NA4 Multiply and divide by 10, 100, 1000 NA16 Multiplying by tens and hundreds NA21 Round to 10 and 100 NA22 Estimation strategies	Investigations: 2, 4, 7
	Uses mental and written strategies for addition and subtraction involving two-, three-, four- and five-digit numbers. (MA2–5NA)	NA13 Addition with larger numbers NA14 Subtraction with larger numbers NA15 Subtraction with zeros NA22 Estimation strategies NA32 Purchases and giving change NA35 Equivalent number sentences	Investigations: 3, 4, 7 Mental computation strategies and practice
	Uses mental and informal written strategies for multiplication and division. (MA2–6NA)	NA5 Multiples 3, 4, 5, 6, 7, 8, 9 NA6 Multiplication facts 2, 3, 5, 10 NA7 Multiplication facts 4, 6, 8, 9 NA8 Multiplication problem solving NA9 Division facts 2, 3, 5, 10 NA10 Division facts 4, 6, 8, 9 NA11 Division problem solving NA12 Backtracking NA17 Multiplication 3-digit x 1-digit NA18 Split and multiply NA19 Division 2-digit ÷ 1-digit NA20 Division strategies NA31 Simple budgets	Investigations: 2, 3, 4, 8, 10, 11

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Represents, models and compares commonly used fractions and decimals. (MA2–7NA)	NA23 Equivalent fractions NA24 Fractions on a number line NA25 Mixed numbers NA26 Improper fractions NA27 Place value to tenths NA28 Tenths on a number line NA29 Place value to hundredths NA30 Hundredths on a number line	Investigations: 1, 5, 11
	Generalises properties of odd and even numbers, generates number patterns and completes simple number sentences by calculating missing values. (MA2–8NA)	NA1 Properties of odd and even numbers NA12 Backtracking NA33 Investigating patterns NA34 Number patterns NA35 Equivalent number sentences	Investigations: 1, 2, 8
Measurement and Geometry	Measures, records, compares and estimates lengths, distances and perimeters in metres, centimetres and millimetres, and measures and records temperatures. (MA2–9MG)	MG1 Graduated scales MG2 Millimetres MG3 Kilometres MG4 Perimeter	Investigations: 5, 7, 8, 10, 12
	Measures, records, compares and estimates areas using square centimetres and square metres. (MA2–10MG)	MG12 Area MG13 Area of irregular shapes	Investigations: 1, 10
	Measures, records, compares and estimates volumes and capacities using litres, millilitres and cubic centimetres. (MA2–11MG)	MG1 Graduated scales MG6 Litres and millilitres MG7 Volume	Investigations: 3, 9
	Measures, records, compares and estimates the masses of objects using kilograms and grams. (MA2–12MG)	MG5 Measuring mass	Investigation: 3
	Reads and records time in one-minute intervals and converts between hours, minutes and seconds. (MA2–13MG)	MG8 Converting units of time MG9 Read and interpret timetables MG10 am and pm MG11 Timelines	Investigation: 6
	Makes, compares, sketches and names three-dimensional objects, including prisms, cylinders, cones and spheres, and describes their features. (MA2–14MG)	MG17 Combining shapes MG18 Drawing prisms and pyramids	Investigations: 9, 12

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Measurement and Geometry	Manipulates, identifies and sketches two- dimensional shapes, including special quadrilaterals, and describes their features. (MA2–15MG)	MG16 Tessellation MG17 Combining shapes	Investigations: 1, 10
	Identifies, describes, compares and classifies angles. (MA2–16MG)	MG14 Angles	Investigation: 1
	Uses simple maps and grids to represent position and follow routes, including using compass directions. (MA2–17MG)	MG3 Kilometres MG15 Using maps	Investigation: 7
Statistics and Probability	Selects appropriate methods to collect data, and constructs, compares, interprets and evaluates data displays, including tables, picture graphs and column graphs. (MA2–18SP)	SP4 Organising data SP5 Column graphs SP6 Picture graphs	Investigations: 5, 6, 7, 12
	Describes and compares chance events in social and experimental contexts. (MA2–19SP)	SP1 Probability SP2 Judgments SP3 Dependent and independent events	Investigation: 12

iMaths 5 NSW Syllabus Match

The tables on these pages list the content strands, their associated sub–strands and content descriptions from the New South Wales Syllabus, and the Topics from *iMaths 5 Student Book* that match these descriptions.

Strand	NSW Syllabus Outcomes Stage 3 (Year 5)	iMaths reference	Examples
Working Mathematically	Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions. (MA3-1WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially when describing real-life situations in mathematical terms and conventions.	Investigation 11, Step 2 What is a duck game?: Have a class discussion about this sideshow game. Discuss what the game looks like, how it is played and how to win a prize. Discuss fair and unfair games. Remember you want to make money.
	Selects and applies appropriate problem-solving strategies, including the use of digital technologies, in undertaking investigations. (MA3-2WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Using maths' section.	Investigation 4, Step 2 Investigate ways to estimate large numbers: Work in a group and discuss the ways you could logically estimate the number of grains of rice in one cup without counting all of them. Discuss your ideas with the class.
	Gives a valid reason for supporting one possible solution over another. (MA3-3WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Reasoning and reporting' section.	Investigation 5, Step 7 Display your tables and graphs: Show the class your table and graphs. Justify your choice of cereals. You must be able to explain the reasons for your recommendation.

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Orders, reads and represents integers of any size and describes properties of whole numbers. (MA3-4NA)	NA3 Round to 100 and 1000 NA4 Estimation strategies NA5 Place value beyond millions NA16 Place value to thousandths NA17 Expanded notation	Investigations: 4, 5, 12
	Selects and applies appropriate strategies for addition and subtraction with counting numbers of any size. (MA3-5NA)	NA18 Decimal addition to tenths NA19 Decimal addition to hundredths NA20 Decimal subtraction to tenths NA21 Decimal subtraction to hundredths NA24 Financial plans and records NA25 Backtracking	Investigation: 7 Mental computation strategies and practice
	Selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation. (MA3-6NA)	NA1 Factors and multiples to solve problems NA2 Factor trees NA6 Multiplication 4-digit x 1-digit NA7 Multiplication 3-digit x 2-digit NA8 Lattice method of multiplication NA9 Division 3-digit ÷ 1-digit NA10 Division with zeros NA11 Division with remainders	Investigations: 4, 6, 8, 10, 12 Mental computation strategies and practice

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Compares, orders and calculates with fractions, decimals and percentages. (MA3-7NA)	NA12 Compare and order fractions NA13 Equivalent fractions NA14 Add and regroup fractions NA15 Add and subtract fractions NA16 Place value to thousandths NA17 Expanded notation NA18 Decimal addition to tenths NA19 Decimal addition to hundredths NA20 Decimal subtraction to tenths NA21 Decimal subtraction to hundredths NA22 Percentages NA23 Percentages using a calculator	Investigations: 2, 5, 7, 11
	Analyses and creates geometric and number patterns, constructs and completes number sentences and locate points on the Cartesian plane. (MA3-8NA)	NA25 Backtracking NA26 Patterns and general rules	Investigation: 11
Measurement and Geometry	Selects and uses the appropriate unit and device to measure lengths and distances, calculates perimeters, and converts between units of length. (MA3-9MG)	MG1 Choosing units of measurement MG4 Perimeter of rectangles MG12 Using scale	Investigations: 3, 8, 10, 11
	Selects and uses the appropriate unit to calculate areas, including areas of squares, rectangles and triangles. (MA3-10MG)	MG5 Area of rectangles MG12 Using scale	Investigations: 8, 10
	Selects and uses the appropriate unit to estimate, measure and calculate volumes and capacities, and converts between units of capacity. (MA3-11MG)	MG2 Capacity, volume and mass MG3 Graduated scales	Investigations: 3, 8, 9
	Selects and uses the appropriate unit and device to measure masses of objects, and converts between units of mass. (MA3-12MG)	MG2 Capacity, volume and mass	Investigations: 3, 8
	Uses 24 hour time and am and pm notation in real-life situations, and constructs timelines. (MA3-13MG)	MG6 24-hour time MG7 Read and interpret timetables MG8 Australian time zones MG19 Duration of events *	Investigations: 1, 7

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Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Measurement and Geometry	Identifies three-dimensional objects, including prisms and pyramids on the basis of their properties, and visualises, sketches and constructs them given drawing of different views. (MA3-14MG)	MG9 Nets of 3D objects	Investigation: 8
	Manipulates, classifies and draws two- dimensional shapes, including equilateral, isosceles and scalene triangles, and describes their properties. (MA3-15MG)	MG17 Flip, slide, turn MG18 Enlargement properties of shapes MG20 Classify triangles * MG21 2D shapes *	Investigations: 8, 10
	Measures and constructs angles and applies angle relationships to find unknown angles. (MA3-16MG)	MG10 Measure angles 0°–180° MG14 Directions, turns and degrees	Investigations: 1, 4
	Locates and describes position on maps using a grid reference system. (MA3-17MG)	MG11 Map references MG12 Using scale MG13 Compass points MG14 Directions, turns and degrees MG15 Coordinates to locate position MG16 Latitude and longitude	Investigations: 1, 10
Statistics and Probability	Uses appropriate methods to collect data and constructs, interprets and evaluates data displays, including dot plots, line graphs and two-way tables. (MA3-18SP)	SP3 Dot plots SP4 Discrete data SP5 Column graphs SP6 Line graphs	Investigations: 3, 5, 9
	Conducts chance experiments and assigns probabilities as values between 0 and 1 to describe their outcomes. (MA3-19SP)	SP1 Probability SP1 Interpreting data	Investigations: 5, 11

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iMaths 6 NSW Syllabus Match

The tables on these pages list the content strands, their associated sub–strands and content descriptions from the New South Wales Syllabus, and the Topics from *iMaths 6 Student Book* that match these descriptions.

Strand	NSW Syllabus Outcomes Stage 3 (Year 6)	iMaths reference	Examples
Working Mathematically	Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions. (MA3-1WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially when describing real-life situations in mathematical terms and conventions.	Investigation 5, Step 2 Which characteristics will you use for your profile?: As a class, discuss and list a set of 10 characteristics suitable for a student profile that you are able to measure or quantify.
	Selects and applies appropriate problem-solving strategies, including the use of digital technologies, in undertaking investigations. (MA3-2WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Using maths' section.	Investigation 10, Step 5 Will a million dollars fit into a suitcase this size?: Determine how many bundles and wads of $50 notes will fit into the suitcase. You will need to know the dimensions of the $50 notes and the suitcase. Think outside the square! The bundles and wads could be packed in different directions or on their sides. Try various arrangements.
	Gives a valid reason for supporting one possible solution over another. (MA3-3WM)	This outcome is covered in: • Topics • Problem solving tasks • Investigations – especially the 'Reasoning and reporting' section.	Investigation 7, Step 6 Report on your fantasy flight: Present your world map, completed tables and list of expenses. Did you find any discounted accommodation? How much did you save? Discuss some of the factors that influenced the decisions you made when planning and budgeting your trip.

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Orders, reads and represents integers of any size and describes properties of whole numbers. (MA3-4NA)	NA1 Prime and composite numbers NA2 Square and triangular numbers NA10 Estimation strategies NA11 Positive and negative numbers	Investigations: 1, 6, 12
	Selects and applies appropriate strategies for addition and subtraction with counting numbers of any size. (MA3-5NA)	NA7 The four operations NA8 Backtracking NA22 Operations with money	Investigations: 2, 10 Mental computation strategies and practice
	Selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation. (MA3-6NA)	NA3 Divisibility tests NA4 Multiplication by two digits NA5 Division with remainders to hundredths NA6 Two-digit divisors NA7 The four operations NA9 The distributive law NA22 Operations with money NA24 Order of operations	Investigations: 1, 2, 8, 9, 10, 12 Mental computation strategies and practice

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Number and Algebra	Compares, order and calculates with fractions, decimals and percentages. (MA3–7NA)	NA12 Equivalent fractions NA13 Add and subtract fractions NA14 Fractions as division NA15 Decimal addition and subtraction NA16 Decimal multiplication NA17 Decimal division NA18 Division by decimals NA19 Multiplication of decimals NA20 Renaming percents as fractions NA21 Discount NA22 Operations with money	Investigations: 2, 3, 7, 8, 9, 10
	Analyses and creates geometric and number patterns, constructs and completes number sentences, and locates points on the Cartesian plane. (MA3-8NA)	NA8 Backtracking NA23 Patterns and general rules MG4 Investigating squares and rectangles MG17 Coordinates in four quadrants	Investigation: 12
Measurement and Geometry	Selects and uses the appropriate unit and device to measure lengths and distances, calculates perimeters, and converts between units of length. (MA3-9MG)	MG1 Metric system of measurement MG2 Perimeter of composite rectangles MG15 Using scale	Investigations: 2, 5, 12
	Selects and uses the appropriate unit to calculate areas, including the areas of squares, rectangles and triangles. (MA3-10MG)	MG3 Area of composite rectangles MG4 Investigating squares and rectangles	Investigations: 2, 8, 12
	Selects and uses the appropriate unit to estimate, measure and calculate volumes and capacities, and converts between units of capacity. (MA3-11MG)	MG1 Metric system of measurement MG5 Packing and stacking	Investigations: 9, 10, 12
	Selects and uses the appropriate unit and device to measure masses of objects, and converts between units of mass. (MA3-12MG)	MG1 Metric system of measurement	Investigation: 2
	Uses 24 hour time and am and pm notation in real-life situations, and constructs timelines. (MA3-13MG)	MG6 Read and interpret timetables MG7 Add and subtract time MG8 Timelines MG9 International time zones	Investigations: 7, 8

Strand	NSW Syllabus Outcomes	Student Book Topics	Investigations and Problem Solving Strategies
Measurement and Geometry	Identifies three-dimensional objects, including prisms and pyramids, on the basis of their properties, and visualises, sketches and constructs them given drawings of different views.(MA3–14MG)	MG10 Nets of prisms and pyramids MG11 Skeletal models	Investigations: 8, 12
	Manipulates, classifies and draws two-dimensional shapes, including equilateral, isoceles and scalene triangles, and describes their properties. (MA3-15MG)	MG16 Transformations MG18 Diagonals * MG19 Circles *	Investigations: 2, 11
	Measures and constructs angles, and applies angle relationships to find unknown angles. (MA3-16MG)	MG12 Properties of angles MG13 Measure angles 0°–360°	Investigations: 5, 8, 11
	Locates and describes position on maps using a grid reference system. (MA3-17MG)	MG14 Latitude and longitude MG17 Coordinates in four quadrants	Investigations: 2, 7, 8
Statistics and Probability	Uses appropriate methods to collect data and constructs, interprets and evaluates data displays, including dot plots, line graphs and two-way tables. (MA3-18SP)	SP3 Causes of bias SP4 Dot plots SP5 Line graphs SP6 Pie charts SP7 Segmented bar charts SP8 Side-by-side column graphs SP9 The graph never lies	Investigations: 4, 5, 6
	Conducts chance experiments and assigns probabilities as values between 0 and 1 to describe their outcomes. (MA1–18SP)	SP1 Probability SP2 Judgments	Investigations: 3, 4, 6, 9

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