Maths Trek

NSW Syllabus Match

Early Stage 1 – Stage 1

NSW Syllabus Edition

Availability information

Our NSW Syllabus Edition of **Maths Trek K–2 is ready for use in 2025.**

Note: Our NSW Syllabus Edition for **Years 3–6 will be ready for use in 2026.** In the meantime, schools can use the Australian Curriculum Edition of Maths Trek. Refer to the *NSW Syllabus Alignment Guide* to see how the Australian Curriculum Edition aligns to Stages 2 and 3.

Refer to the tables to see how the Maths Trek NSW Syllabus Edition topics, investigations and problem-solving units match the NSW Mathematics Syllabus for Early Stage 1 to Stage 1B.
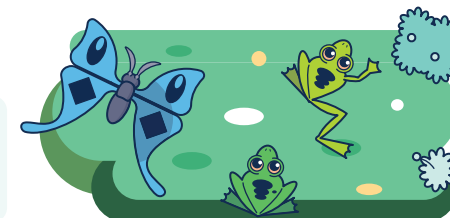
Early Stage 1 Syllabus Match — Maths Trek K

Working mathematically

Outcome MAO-WM-01 is comprehensively covered in the Maths Trek program. Students develop mathematical understanding, fluency, reasoning and problem-solving skills as they work through the sequence of topics, revision and investigations.

A student:
- develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01

Number and algebra

Mathematical concept	Outcomes	Content	Topics and investigations	
Representing whole numbers	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • demonstrates an understanding of how whole numbers indicate quantity MAE-RWN-01 • reads numerals and represents whole numbers to at least 20 MAE-RWN-02	**Instantly name the number of objects within small collections** • Instantly recognise (subitise) the number of items in small groups of up to four items without counting	**1.1** One **1.2** Two **2.1** Three	**2.2** Count to three **3.2** Four **INV** Oz-animal Olympics
		• Identify the number of items in different arrangements	**2.2** Count to three **3.2** Four	**3.3** Five **9.1** Dot patterns
		Use the counting sequence of ones flexibly • Count forwards to at least 30 and state the number after or before a given number, without needing to count from one	**10.1** Count to 10 **14.1** Numbers before, after, in between	**29.2** Count to 30 **31.2** Missing numbers to 30
		• Identify and distinguish the 'teen' numbers from multiples of ten with the same initial sounds	**29.2** Count to 30	
		• Count backwards from a given number 20 or less	**13.2** Count backwards from 10	**28.2** Count forwards and backwards
		• Identify the number before as 'one less' and the number after as 'one more' than a given number	**12.1** One more than **13.1** One less than	**14.1** Numbers before, after, in between
		Recognise number patterns • Recognise dice and domino dot patterns	**9.1** Dot patterns	
		• Recognise different finger patterns for the same number	Included in all topics that introduce numbers to 10.	

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Maths Trek K

Number and algebra

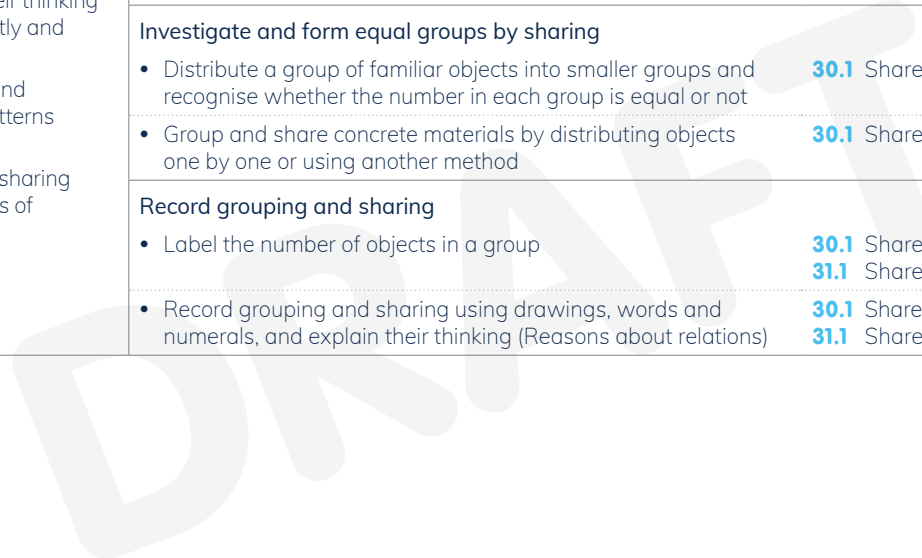| Mathematical concept	Outcomes	Content	Topics and investigations	
Representing whole numbers cont.		**Connect counting and numerals to quantities**		
		• Count with one-to-one correspondence, recognising that the last number name represents the total number in the collection	**4.1** Count and match one-to-one	**16.3** Count collections **17.3** Count collections
		• Count out a specified number of objects (from 5 to 20) from a larger collection, keeping track of the count	**16.2** Numbers 11 to 15	**17.2** Numbers 16 to 20
		• Make correspondences between collections (Reasons about quantity)	**8.2** Compare collections to 10	**22.2** Compare collections to 20
		• Read numerals to at least 20, including zero	**1.1** One **1.2** Two **2.1** Three **3.2** Four **3.3** Five **4.3** Six **4.4** Seven	**7.1** Eight **7.2** Nine **7.3** Ten **8.1** Zero **16.2** Numbers 11 to 15 **16.3** Count collections **17.2** Numbers 16 to 20
		• Represent numbers as quantities to at least 20 using objects (such as fingers), number words and numerals	**1.1** One **1.2** Two **2.1** Three **3.2** Four **3.3** Five **4.3** Six **4.4** Seven **7.1** Eight **7.2** Nine **7.3** Ten	**8.1** Zero **8.3** Represent numbers to 10 **16.2** Numbers 11 to 15 **16.3** Count collections **17.2** Numbers 16 to 20 **17.3** Count collections **19.2** Represent numbers 11 to 15 **20.2** Represent numbers 16 to 20 **30.2** Use ten frames to represent numbers to 20
		• Compare and order numbers to 20	**25.2** Order numbers to 20	**33.2** Order numbers to 30
		• Use the term 'is the same as' to express equality of groups (Reasons about quantity)	**3.4** Equal groups	**8.2** Compare collections to 10

Early Stage 1 Syllabus Match — Maths Trek K

Number and algebra

Mathematical concept	Outcomes	Content	Topics and investigations	
Combining and separating quantities	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • reasons about number relations to model addition and subtraction by combining and separating, and comparing collections MAE-CSQ-01 • represents the relations between the parts that form the whole, with numbers up to 10 MAE-CSQ-02	**Model additive relations and compare quantities** • Identify situations in which addition and subtraction may be applied	**35.1** Addition and subtraction	**INV** Zoo escape
		• Combine two or more groups of objects to model addition, identifying the relationship between the parts and the whole	**16.1** Combine two groups **17.1** Combine two groups **19.1** Model addition	**20.1** Addition: How many altogether? **22.1** Addition stories
		• Separate and take away part of a group of objects to model subtraction	**23.1** Model subtraction **23.2** Subtraction stories	**29.1** Take away
		• Use concrete materials or fingers to model and solve addition and subtraction questions, counting forwards or backwards by ones as necessary	**19.1** Model addition **21.1** Use beads to show addition	**21.2** Make 10 **33.4** Find the missing group
		• Compare two groups of objects to determine how many more (Reasons about quantity)	**25.1** Find the difference	**34.4** Compare two groups to find the difference
		Identify part–whole relationships in numbers up to 10 • Use visual representations of numbers to assist with combining and separating quantities, identifying the relationship between the quantities	**22.4** Use ten frames to show addition	**29.3** Add more to make 10
		• Describe the action of combining, separating and comparing	**21.2** Make 10	
		• Use five as a reference in forming numbers from six to ten	**4.3** Six **4.4** Seven **7.1** Eight	**7.2** Nine **7.3** Ten
		• Create, model and recognise combinations for numbers up to ten (Reasons about relations)	**10.3** Partition 6 and 7 **11.1** Use ten frames to represent numbers to 10 **12.3** Partition 8 and 9	**13.3** Partition 10 **21.2** Make 10 **29.3** Add more to make 10
		• Count by ones to find the total or difference	**28.1** Count on 1 and 2 **29.3** Add more to make 10 **33.3** Money	**33.4** Find the missing group **34.3** Shopping
		• Use drawings, words and numerals to record addition and subtraction, and explain their thinking (Reasons about relations)	**19.1** Model addition **20.1** Addition: How many altogether? **21.2** Make 10 **27.1** Draw pictures to show subtraction	**33.4** Find the missing group **34.3** Shopping **INV** Zoo escape

Early Stage 1 Syllabus Match   Maths Trek K

Number and algebra

Mathematical concept	Outcomes	Content	Topics and investigations	
Forming groups	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • recognises, describes and continues repeating patterns MAE-FG-01 • forms equal groups by sharing and counting collections of objects MAE-FG-02	**Copy, continue and create patterns** • Copy and continue repeating patterns using sounds and/or actions	**19.3** Copy a pattern	
		• Copy, continue and create repeating patterns using shapes, objects, images or pictures (Reasons about patterns)	**21.3** Identify the next item in a pattern **22.3** Describe and continue patterns	**23.3** Continue and create patterns
		Investigate and form equal groups by sharing • Distribute a group of familiar objects into smaller groups and recognise whether the number in each group is equal or not	**30.1** Share equally	**31.1** Share equally
		• Group and share concrete materials by distributing objects one by one or using another method	**30.1** Share equally	
		Record grouping and sharing • Label the number of objects in a group	**30.1** Share equally **31.1** Share equally	**34.1** Make equal groups
		• Record grouping and sharing using drawings, words and numerals, and explain their thinking (Reasons about relations)	**30.1** Share equally **31.1** Share equally	**34.1** Make equal groups **INV** Hungry billy goats

Early Stage 1 Syllabus Match

Maths Trek K

Measurement and space

Mathematical concept	Outcomes	Content	Topics and investigations			
Geometric measure	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • describes position and gives and follows simple directions MAE-GM-01 • describes and compares lengths MAE-GM-02 • identifies half the length and the halfway point MAE-GM-03	**Position: Describe position and movement of oneself**				
		• Give and follow simple directions to position themselves or objects	**9.3** Position			
		• Describe the position of an object in relation to another object, such as in, on, under as well as the directions up and down	**5.3** High and low, near and far	**9.3** Position		
		• Describe the position of an object using proximity terms and referring to frames of reference	**3.1** In front of, behind, between, next to			
		• Use the ordinal names to at least third to describe order of position	**5.1** Ordinal numbers to 5th **28.3** Ordinal numbers to 10th	**INV** Oz-animal Olympics		
		• Begin to describe the positions of objects in relation to themselves using the terms 'left' and 'right'	**26.3** Left and right			
		Length: Use direct and indirect comparisons to decide which is longer				
		• Identify the attribute of 'length' as the measure of an object from end to end	**2.3** Short and long			
		• Use comparative language to describe length	**1.3** Short and tall **1.4** Long/short, wide/narrow, thick/thin	**2.3** Short and long **16.4** Compare length **17.4** Longer than, shorter than		
		• Compare lengths directly by placing objects side by side and aligning the ends	**16.4** Compare length	**17.4** Longer than, shorter than		
		• Explain why the length of a piece of string remains unchanged whether placed in a straight line or a curve	**2.3** Short and long			
		• Compare lengths indirectly by copying a length (Reasons about relations)	**17.4** Longer than, shorter than			
		Length: Create half a length				
		• Divide a length into two equal parts (Reasons about relations)	**18.3** Half a length			
		• Distinguish between the halfway point and half a length	**18.3** Half a length			
		• Describe positions as 'about halfway', 'more than halfway' or 'less than halfway'	**18.3** Half a length			

Early Stage 1 Syllabus Match — Maths Trek K

Measurement and space

Mathematical concept	Outcomes	Content	Topics and investigations	
Two-dimensional spatial structure	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • sorts, describes, names and makes two-dimensional shapes, including triangles, circles, squares and rectangles MAE-2DS-01 • describes and compares areas of similar shapes MAE-2DS-02	**2D shapes: Sort, describe and name familiar shapes**		
		• Identify familiar shapes in a range of contexts	**14.2** Name and sort shapes	
		• Sort shapes according to features such as size and shape	**13.4** Sort shapes	
		• Recognise and explain how a group of shapes has been sorted (Reasons about spatial relations)	**13.4** Sort shapes	**14.2** Name and sort shapes
		• Describe shapes, including circles, squares, triangles and rectangles	**10.4** Circles **11.2** Triangles **11.3** Squares	**12.4** Rectangles **14.2** Name and sort shapes
		• Ask and respond to questions that help identify and name a particular shape	**10.4** Circles **11.2** Triangles	**11.3** Squares **12.4** Rectangles
		• Distinguish examples of triangles from non-examples	**11.2** Triangles	
		2D shapes: Represent shapes		
		• Manipulate circles, squares, triangles and rectangles, and describe their features	**INV** Hopscotch	
		• Turn shapes to fit into or match a given space (Reasons about spatial relations)	**INV** Hopscotch	
		• Make representations of shapes in a variety of ways, using paint, paper, movements or technology	**10.4** Circles **11.2** Triangles	**11.3** Squares **12.4** Rectangles
		• Make pictures and designs using a selection of shapes	**INV** Hopscotch	
		• Make two-dimensional shapes by tracing around the faces of three-dimensional objects	**14.2** Name and sort shapes	
		• Identify and draw lines and curves	**10.2** Lines and shapes	
		Area: Identify and compare area		
		• Make closed shapes and identify the attribute of area as the measure of the amount of surface	**9.2** Area	**10.2** Lines and shapes
		• Use comparative language to describe areas	**9.2** Area	**35.2** Compare areas
		• Predict which of two surfaces will have the larger area and justify the answer (Reasons about spatial relations)	**35.2** Compare areas	
		• Compare areas of two similar shapes directly by drawing, tracing, or cutting and pasting	**9.2** Area	

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Maths Trek K

Measurement and space

Mathematical concept	Outcomes	Content	Topics and investigations
Three-dimensional spatial structure	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • manipulates, describes and sorts three-dimensional objects MAE-3DS-01 • describes and compares volumes MAE-3DS-02	**3D objects: Explore familiar three-dimensional objects** • Describe the features of familiar objects	**18.2** Sort and describe 3D objects
		• Sort objects and identify the attribute used to sort them	**18.2** Sort and describe 3D objects
		• Make and describe a variety of three-dimensional models	**25.3** 3D models
		• Predict the stacking capabilities of various three-dimensional objects (Reasons about spatial relations)	**26.2** Predict movement of 3D objects
		Volume: Compare internal volume by filling and packing • Fill and empty containers using materials such as water or sand	**26.4** Holds more, holds less **27.3** Compare capacity
		• Use the terms 'full', 'empty' and 'about half full'	**25.4** Full and empty
		• Compare the internal volumes (capacities) of two containers directly by filling one and pouring into the other	**27.3** Compare capacity
		• Compare the internal volumes of two containers indirectly by pouring their contents into two other identical containers and observing the level reached in each	**27.3** Compare capacity
		• Establish that containers of different shapes may hold the same amount	**26.4** Holds more, holds less
		• Stack and pack blocks into defined spaces	**26.4** Holds more, holds less
		Volume: Compare volume by building • Identify the attribute of *volume* as the amount of space an object or substance occupies	**30.3** Compare volume
		• Compare the volumes of two objects made from blocks or connecting cubes directly by deconstructing one object and using its parts to construct a copy of the other object	**30.3** Compare volume
		• Use comparative language to describe volume	**30.3** Compare volume

Early Stage 1 Syllabus Match

Maths Trek K

Measurement and space

Mathematical concept	Outcomes	Content	Topics and investigations
Non-spatial measure	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • describes and compares the masses of objects MAE-NSM-01 • sequences events and reads hour time on clocks MAE-NSM-02	**Mass: Identify and compare mass using weight** • Identify that objects can be heavy or light	**19.4** Heavy and light
		• Compare two masses directly by hefting	**20.3** Compare mass by hefting
		• Predict which object would be heavier than, lighter than, or have about the same weight as another object and explain reasons for this prediction (Reasons about relations)	**21.4** Heavier, lighter, the same as
		Time: Compare and order the duration of events using the language of time • Use terms such as 'daytime', 'night-time', 'morning', 'afternoon', 'today', 'tomorrow', 'yesterday', 'before', 'after' and 'next'	**7.4** Events in my day **28.4** Before and after **12.2** Yesterday, today, tomorrow **30.4** Sequence events
		• Sequence events in time	**30.4** Sequence events
		• Compare the duration of two events	**18.1** Duration of events
		Time: Connect days of the week to familiar events and actions • Recall that there are seven days in a week	**8.4** Days of the week: The Hungry Caterpillar
		• Name and order the days of the week	**8.4** Days of the week: The Hungry Caterpillar
		• Identify events that occur daily and relate events to a particular day or time of day	**7.4** Events in my day **8.4** Days of the week: The Hungry Caterpillar
		Time: Tell time on the hour on analog and digital clocks • Create the layout of an analog clock	**4.2** O'clock
		• Read analog and digital clocks to the hour using the term 'o'clock'	**4.2** O'clock **33.1** Analog and digital time
		• Describe the position of the hour and minute hands on an analog clock when reading hour time	**4.2** O'clock

Early Stage 1 Syllabus Match

Maths Trek K

Statistics and probability

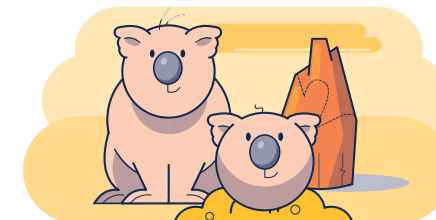| Mathematical concept	Outcomes	Content	Topics and investigations	
Data	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • contributes to collecting data and interprets data displays made from objects MAE-DATA-01	**Respond to questions, collect information and discuss possible outcomes of activities** • Predict possible responses to a question	**26.1** Collect data	**31.3** Collect data
		• Collect information from their peers and about their environment	**14.3** Ask questions to collect data **26.1** Collect data	**31.3** Collect data **34.2** Use tally marks to show data
		• Pose and respond to questions about the information collected	**14.3** Ask questions to collect data **26.1** Collect data	**31.3** Collect data **34.2** Use tally marks to show data
		Organise objects into simple data displays and interpret the displays • Group objects according to characteristics	**5.2** Sort data	**27.2** Data displays
		• Compare the sizes of groups of objects by counting (Reasons about relations)	**5.2** Sort data	
		• Arrange objects according to a characteristic to form a data display	**5.2** Sort data	**27.2** Data displays
		• Interpret information presented in a data display to answer questions (Reasons about quantity)	**5.2** Sort data **26.1** Collect data **27.2** Data displays	**31.3** Collect data **35.3** Interpret data displays
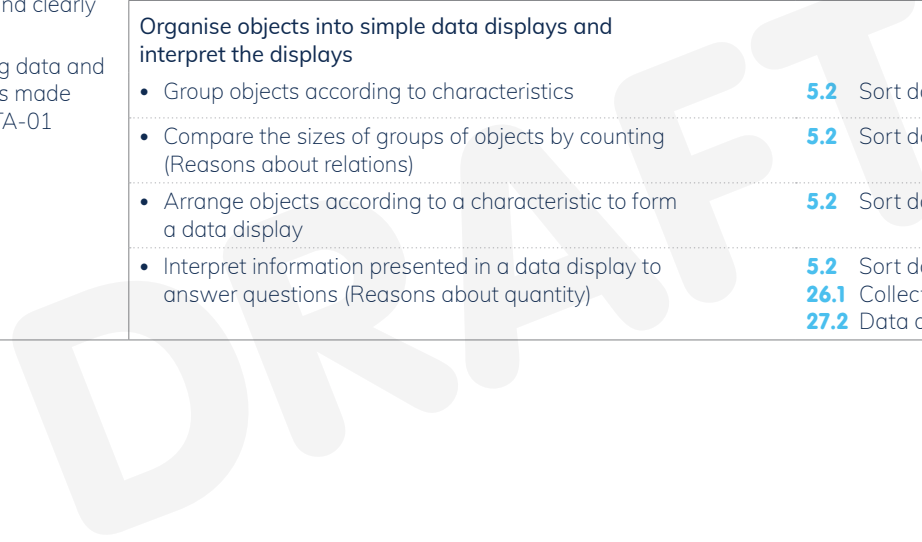
Stage 1A Syllabus Match

Maths Trek 1

Working mathematically

Outcome MAO-WM-01 is comprehensively covered in the Maths Trek program. Students develop mathematical understanding, fluency, reasoning and problem-solving skills as they work through the sequence of topics, revision, investigations, problem-solving strategies and practice problems.

A student:
- develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01

Number and algebra

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving			
Representing whole numbers A	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • applies an understanding of place value and the role of zero to read, write and order two- and three-digit numbers MA1-RWN-01 • reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values MA1-RWN-02	**Use counting sequences of ones with two-digit numbers and beyond** • Identify the number before and after a given two-digit number	**1.2**	Counting in ones	**2.1**	Counting in ones to 100
			1.3	Reading and writing numbers to 20	**17.3**	One more, one less, ten more, ten less
		• Count forwards and backwards by ones from a given number to at least 120	**1.2**	Counting in ones	**2.1**	Counting in ones to 100
		Continue and create number patterns • Model and describe 'odd' and 'even' numbers using items paired in two rows	**2.2**	Odd and even number patterns		
		• Count forwards and backwards by twos from any starting point	**2.3**	Skip counting by twos to 20	**14.2**	Skip counting by twos to 100
		Represent numbers on a line • Sequence numbers and arrange them on a line by considering the order and size of those numbers	**2.1** **2.3** **9.1**	Counting in ones to 100 Skip counting by twos to 20 Ordering numbers to 100	**19.1**	Count and order numbers to 150
		• Locate the approximate position of multiples of 10 on a model of a number line from 0 to 100	**9.1**	Ordering numbers to 100		
		Represent the structure of groups of ten in whole numbers • Recognise that ten ones is the same as one ten	**30.1**	Regrouping two-digit numbers		
		• Use 10 as a reference in forming numbers from 11 to 20	**1.3**	Reading and writing numbers to 20		

Stage 1A Syllabus Match   Maths Trek 1

Number and algebra

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving			
Representing whole numbers A cont.		• Count large sets of objects by systematically grouping in tens	**3.2** Representing two-digit numbers to 30 **3.3** Reading and writing two-digit numbers		**9.2** Counting collections to 100 **10.1** Counting groups of 10	
		• Partition two-digit numbers to show quantity values	**11.1** Representing two-digit numbers **17.1** Representing tens and ones **18.1** Writing tens and ones		**23.1** Partitioning tens and ones **30.1** Regrouping two-digit numbers	
		• Use number lines and number charts to assist with locating the nearest ten to a number	**9.2** Counting collections to 100			
		• Estimate, to the nearest ten, the number of objects in a collection and check by counting in groups of ten (Reasons about quantity)	**9.2** Counting collections to 100			
Combining and separating quantities A	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning MA1-CSQ-01	**Use advanced count-by-one strategies to solve addition and subtraction problems** • Apply the terms 'add', 'plus', 'equals', 'is equal to', 'is the same as', 'take away', 'minus' and 'the difference between' to describe combining and separating quantities	**7.1** Addition number sentences **15.1** Subtraction		**18.2** Subtraction – find the difference **23.2** Subtraction facts	
		• Recognise and use the symbols for plus (+), minus (–) and equals (=)	**7.1** Addition number sentences		**16.1** Subtraction number sentences	
		• Record number sentences in a variety of ways using drawings, words, numerals and symbols	**7.1** Addition number sentences **12.1** Addition using think boards **14.1** Partitioning to 20 **15.1** Subtraction **16.1** Subtraction number sentences **16.2** Subtraction using think boards		**18.2** Subtraction – find the difference **23.2** Subtraction facts **28.2** Addition and subtraction money problems	
		• Fluently use advanced count-by-one strategies including counting on and counting back to solve addition and subtraction problems involving one- and two-digit numbers (Reasons about relations)	**8.1** Addition using number lines **9.3** Counting on 1 or 2 **15.1** Subtraction **16.1** Subtraction number sentences		**17.2** Counting back 1 or 2 **17.3** One more, one less, ten more, ten less **23.2** Subtraction facts	

Stage 1A Syllabus Match

Maths Trek 1

Number and algebra

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving		
Combining and separating quantities A cont.		**Recognise and recall number bonds up to ten**			
		• Recognise, recall and record combinations of two numbers that add up or bond to form 10	**7.1** Addition number sentences **10.2** Friends of 10	**28.2** Addition and subtraction money problems **INV** Numbers up	
		• Model and record patterns for individual numbers up to ten by making all possible whole-number combinations (Reasons about patterns)	**4.1** Partitioning to 10 **10.2** Friends of 10	**23.4** Problem-solving practice	
		• Create, recall and recognise combinations of two numbers that add up to numbers less than 10	**4.1** Partitioning to 10 **10.4** Guessing and checking	**25.4** Finding smaller parts of a larger problem **26.4** Problem-solving practice	
		• Describe combinations for numbers using words such as *more than*, *less than* and *double* (Reasons about relations)	**22.1** Addition facts	**23.2** Subtraction facts	
		Use flexible strategies to solve addition and subtraction problems			
		• Use non-count-by-one strategies such as using doubles for near doubles and combining numbers that add to ten	**12.2** Doubles and near doubles **19.2** Think addition to subtract **22.1** Addition facts **23.2** Subtraction facts	**28.2** Addition and subtraction money problems **INV** Let's roll **INV** Breakfast cafe	
		• Represent addition and subtraction using structured materials such as a bead string or similar model	**8.1** Addition using number lines **16.1** Subtraction number sentences	**18.3** Addition using ten frames and number lines **28.1** Working with coins and notes	
		• Select and apply strategies using number bonds to solve addition and subtraction problems with one- and two-digit numbers by partitioning numbers using quantity value and bridging to 10 (Reasons about relations)	**22.1** Addition facts **25.3** Addition – split and add	**27.1** Bridging to tens **28.1** Working with coins and notes	
		Represent equality			
		• Use the equals sign to record equivalent number sentences involving addition, and to mean 'is the same as', rather than as an indication to perform an operation (Reasons about relations)	**11.2** Turnarounds	**24.1** Equivalent number sentences	
		• Model the commutative property for addition and apply it to aid the recall of addition facts (Reasons about relations)	**11.2** Turnarounds	**24.1** Equivalent number sentences	
		• Recall related addition and subtraction facts for numbers to at least 10 (Reasons about relations)	**19.2** Think addition to subtract	**20.1** Addition and subtraction are related	

Stage 1A Syllabus Match
Maths Trek 1

Number and algebra

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving		
Forming groups A	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems MA1-FG-01	**Count in multiples using rhythmic and skip counting** • Count by twos, threes, fives and tens using rhythmic counting and skip counting	**2.3** Skip counting by twos to 20 **7.2** Skip counting by fives **8.2** Skip counting by tens	**14.2** Skip counting by twos to 100 **20.3** Describing number patterns	
		Use skip counting patterns • Identify and describe patterns when skip counting forwards or backwards by twos, fives and tens	**3.4** Making a table or chart **19.4** Working backwards	**20.3** Describing number patterns **23.4** Problem-solving practice	
		• Determine a missing number in a number pattern with a constant difference	**2.3** Skip counting by twos to 20 **7.2** Skip counting by fives	**8.2** Skip counting by tens **14.2** Skip counting by twos to 100	
		• Describe how the missing number in a number pattern was determined (Reasons about relations)	**20.3** Describing number patterns	**22.2** Keeping the pattern going	
		Model and use equal groups of objects to represent multiplication • Model and describe collections of objects as *groups of*	**25.1** Equal groups		
		• Determine and distinguish between the *number of groups* and the *number in each group* when describing collections of objects (Reasons about relations)	**25.1** Equal groups	**26.2** Equal groups	
		• Find the total number of objects using skip counting of equal groups of a known size	**26.2** Equal groups		
		Recognise and represent division • Use concrete materials to model a half of a collection and show the relation between the half and the whole	**26.3** Sharing equally		
		• Model sharing division by distributing a collection of objects equally into a given number of groups to determine how many in each group	**26.3** Sharing equally	**27.3** Sharing and grouping	
		• Model grouping division by determining the number of groups of a given size that can be formed	**27.2** How many groups?	**27.3** Sharing and grouping	
		• Describe the part left over when a collection cannot be distributed equally using the given group size	**26.3** Sharing equally		

Stage 1A Syllabus Match

Maths Trek 1

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving	
Geometric measure A	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • represents and describes the positions of objects in familiar locations MA1-GM-01 • measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres MA1-GM-02 • creates and recognises halves, quarters and eighths as part measures of a whole length MA1-GM-03	**Position: Follow directions to familiar locations**		
		• Give and follow directions, including directions involving turns to the left and right, to move between familiar locations	**12.3** Following directions	**26.1** Following and writing directions
		• Give and follow instructions to position objects in models and drawings	**11.3** Describing position	
		• Describe the path from one location to another on drawings and diagrams	**26.1** Following and writing directions	
		Length: Measure the lengths of objects using uniform informal units		
		• Use uniform informal units to measure lengths and distances by placing the units end to end without gaps or overlaps	**5.3** Measuring length using informal units **19.3** Informal units to measure length	**INV** Ramp champ
		• Select appropriate uniform informal units to measure lengths and distances	**19.3** Informal units to measure length	
		• Recognise and explain the relationship between the size of a unit and the number of units needed (Reasons about relations)	**5.3** Measuring length using informal units	**19.3** Informal units to measure length
		• Count informal units to measure lengths or distances and describe the part left over	**19.3** Informal units to measure length	
		• Record lengths and distances by referring to the number and type of unit used	**5.3** Measuring length using informal units **19.3** Informal units to measure length	**INV** Ramp champ
		• Use a single informal unit repeatedly (iteratively) to measure length	**19.3** Informal units to measure length	
		Length: Compare lengths using uniform informal units		
		• Compare the lengths of two or more objects using appropriate uniform informal units and check by placing the objects side by side and aligning the ends	**19.3** Informal units to measure length	
		• Explain why the length of an object remains constant when rearranged (Reasons about relations)	**5.3** Measuring length using informal units	
		• Estimate lengths, indicating the number and type of unit used and check by measuring	**5.3** Measuring length using informal units	

Stage 1A Syllabus Match — Maths Trek 1

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving
Geometric measure A cont.		**Length: Subdivide lengths to find halves and quarters**	
		• Use concrete materials to model both half and quarters of a whole length, highlighting the length	**25.2** Halves and quarters of a length
		• Identify two equal parts and the relationship of the parts to the whole length, linking words and images	**25.2** Halves and quarters of a length
		• Recognise when lengths have or have not been divided into halves and quarters	**25.2** Halves and quarters of a length
Two-dimensional spatial structure A	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • recognises, describes and represents shapes including quadrilaterals and other common polygons MA1-2DS-01 • measures and compares areas using uniform informal units in rows and columns MA1-2DS-02	**2D shapes: Recognise and classify shapes using obvious features**	
		• Explore, manipulate and describe features of polygons	**7.3** Which 2D shape is that?
		• Use the terms 'side', 'vertex' and 'two-dimensional' to describe plane (flat) shapes	**8.3** Classifying 2D shapes
		• Create repeating linear patterns with shapes, including two-shape and three-shape patterns	**15.2** Repeating shape patterns
		• Compare, sort and classify polygons according to the number of sides or vertices	**8.3** Classifying 2D shapes **28.3** Triangles and quadrilaterals
		• Select and name a shape from a description of its features, identifying triangles, quadrilaterals, pentagons, hexagons and octagons (Reasons about spatial relations)	**28.3** Triangles and quadrilaterals
		• Recognise that shapes with the same name may have sides of equal or different lengths (Reasons about spatial relations)	**28.3** Triangles and quadrilaterals
		• Identify shapes presented in different orientations	**7.3** Which 2D shape is that?
		2D shapes: Transform shapes with slides and reflections	
		• Recognise that sliding or reflecting a shape does not change its size or features (Reasons about spatial relations)	**31.3** Reflect, slide, turn
		• Identify and create a slide (translation) or reflection of a single shape and use the terms 'slide' (translation) and 'reflection' to describe the movement of the shape	**31.3** Reflect, slide, turn
		• Make designs with symmetry from reflection using paper-folding, mirrors, drawings or paintings	**31.3** Reflect, slide, turn

Stage 1A Syllabus Match

Maths Trek 1

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving
Two-dimensional spatial structure A cont.		**Area: Indirectly compare area**	
		• Indirectly compare the areas of two surfaces that cannot be moved or superimposed	**30.2** Compare area
		• Predict which of two similar shapes has the larger area and check by covering	**30.2** Compare area
		Area: Measure areas using uniform informal units	
		• Explore area using uniform informal units to cover the surface in rows or columns without gaps or overlaps	**31.1** Measure area
		• Measure area by selecting and using appropriate uniform informal units (Reasons about relations)	**31.1** Measure area
		• Explain the relationship between the size of a unit and the number of units needed to measure an area (Reasons about relations)	**31.1** Measure area
		• Explain why the area remains constant when units are rearranged (Reasons about relations)	**31.1** Measure area
		• Record areas by referring to the number and type of uniform informal unit used	**31.1** Measure area
		• Identify any parts of units left over when counting uniform informal units to measure area	**31.1** Measure area
		• Estimate areas by referring to the number and type of uniform informal unit used and check by measuring	**31.1** Measure area

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Stage 1A Syllabus Match **Maths Trek 1**

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving
Three-dimensional spatial structure A	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • recognises, describes and represents familiar three-dimensional objects MA1-3DS-01 • measures, records, compares and estimates internal volumes (capacities) and volumes using uniform informal units MA1-3DS-02	**3D objects: Recognise familiar three-dimensional objects**	
		• Use the term 'three-dimensional' to describe a range of objects	**15.3** Identify 3D objects
		• Distinguish between objects, which are *three-dimensional (3D)* and shapes which are *two-dimensional (2D)*	**15.3** Identify 3D objects
		• Identify and name familiar three-dimensional objects, including cubes, cylinders, spheres and rectangular prisms	**15.3** Identify 3D objects
		3D objects: Sort and describe three-dimensional objects	
		• Manipulate and describe familiar three-dimensional objects	**16.3** Sort and describe 3D objects
		• Use the term 'surface' in describing familiar three-dimensional objects	**16.3** Sort and describe 3D objects
		• Sort familiar three-dimensional objects according to obvious features	**16.3** Sort and describe 3D objects
		• Use the term 'face' to describe the flat surfaces of three-dimensional objects with straight edges	**16.3** Sort and describe 3D objects
		• Select and name a familiar three-dimensional object from a description of its features	**16.3** Sort and describe 3D objects
		Volume: Measure and compare the internal volumes (capacities) of containers by filling	
		• Use uniform informal units to measure how much a container will hold by counting the number of times a smaller container can be filled and emptied into the container being measured	**23.3** Measuring capacity
		• Select appropriate informal units to measure the capacities of containers	**23.3** Measuring capacity
		• Recognise and explain the relationship between the size of a unit and the number of units needed (Reasons about relations)	**23.3** Measuring capacity
		• Compare the internal volumes of two or more containers using appropriate uniform informal units	**23.3** Measuring capacity
		• Recognise and explain why containers of different shapes may have the same internal volume (Reasons about relations)	**23.3** Measuring capacity
		• Estimate how much a container holds by referring to the number and type of uniform informal units used and check by measuring	**23.3** Measuring capacity

Stage 1A Syllabus Match　　　　　　　　　　　　　　　　　　　　　**Maths Trek 1**

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving
Three-dimensional spatial structure A cont.		**Volume: Measure the internal volume (capacity) of containers by packing**	
		• Pack cubic units (eg blocks) into rectangular containers so that there are no gaps	**20.2** Measure volume by packing
		• Recognise that cubes pack better than other objects in rectangular containers (Reasons about spatial structure)	**20.2** Measure volume by packing
		• Estimate and measure the internal volume of a container by filling the container with uniform informal units and counting the number of units used	**20.2** Measure volume by packing
		• Explain that if there are gaps when packing and stacking, this will affect the accuracy of measuring the internal volume	**20.2** Measure volume by packing
		Volume: Construct volumes using cubes	
		• Explore different rectangular prisms that can be made from a given number of cubes	**24.2** Building prisms with cubes
		• Devise and explain strategies for stacking and counting units to form a rectangular prism (Reasons about spatial structure)	**24.2** Building prisms with cubes
		• Record volumes, referring to the number and type of uniform informal unit used	**24.2** Building prisms with cubes

Stage 1A Syllabus Match

Maths Trek 1

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving
Non-spatial measure A	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • measures, records, compares and estimates the masses of objects using uniform informal units MA1-NSM-01 • describes, compares and orders durations of events, and reads half- and quarter-hour time MA1-NSM-02	**Mass: Investigate mass using an equal-arm balance** • Place objects on either side of an equal-arm balance to obtain a level balance • Use an equal-arm balance to compare the masses of two objects and record, which is heavier or lighter • Predict the action of an equal-arm balance before placing particular objects in each pan (Reasons about relations) • Use a balance to find two collections of objects that have the same mass • Compare and order the masses of two or more objects by hefting, and check using an equal-arm balance	**4.2** Comparing mass – heavier, lighter **4.2** Comparing mass – heavier, lighter **4.2** Comparing mass – heavier, lighter **4.2** Comparing mass – heavier, lighter **4.2** Comparing mass – heavier, lighter
		Time: Name and order the cycle of months • Name and order the months of the year • Recall the number of days in each month • Identify a day and date using a Gregorian calendar • Recognise monthly and annual cycles	**3.1** Days, weeks, months, years **10.3** Calendars and months **10.3** Calendars and months **3.1** Days, weeks, months, years **10.3** Calendars and months **10.3** Calendars and months **31.2** Months and seasons
		Time: Tell time to the half-hour • Read analog clocks to the half-hour using the terms 'o'clock' and 'half past' • Describe the position of the hands on a clock for the half-hour • Connect the use of half turns to the turn of the minute hand for the passing of the half-hour • Explain why the hour hand on a clock is halfway between successive hour-markers when the minute hand shows the half-hour (Reasons about relations) • Describe everyday events with particular hour and half-hour times • Record hour and half-hour time, making connections between analog and digital clocks	**4.3** Time – o'clock, half past **4.3** Time – o'clock, half past **4.3** Time – o'clock, half past **4.3** Time – o'clock, half past **4.3** Time – o'clock, half past **4.3** Time – o'clock, half past

Stage 1A Syllabus Match | Maths Trek 1

Statistics and probability

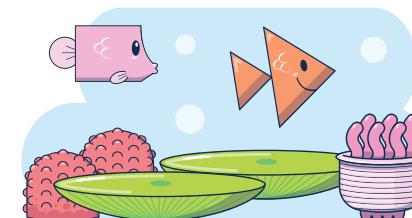| Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving		
Data A	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • gathers and organises data, displays data in lists, tables and picture graphs MA1-DATA-01 • reasons about representations of data to describe and interpret the results MA1-DATA-02	**Ask questions and gather data** • Investigate a topic of interest by choosing suitable questions to obtain appropriate data	**30.3** Collecting data		
		• Gather data and track what has been counted by using concrete materials, tally marks, lists or symbols	**5.2** Collecting data using tally marks **14.3** Object graphs	**22.3** Collecting data **30.3** Collecting data	
		Represent data with objects and drawings and describe the displays • Use concrete materials or pictures of objects as symbols to create data displays where one object or picture represents one data value	**14.3** Object graphs	**24.3** Picture graphs	
		• Describe information presented in one-to-one data displays (Reasons about relations)	**14.3** Object graphs	**24.3** Picture graphs	
		• Use comparative language to describe information presented in a display, such as 'more than' and 'less than'	**14.3** Object graphs **22.3** Collecting data	**24.3** Picture graphs **30.3** Collecting data	
		• Interpret a data display and identify the biggest or smallest values	**5.2** Collecting data using tally marks **14.3** Object graphs	**22.3** Collecting data **24.3** Picture graphs **30.3** Collecting data	
Chance A	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • recognises and describes the element of chance in everyday events MA1-CHAN-01	**Identify and describe possible outcomes** • Identify possible outcomes of familiar activities and events	**5.1** Possible outcomes		
		• Describe the chance of possible outcomes for familiar activities and events	**5.1** Possible outcomes		

Stage 1B Syllabus Match

Maths Trek 2

Working mathematically

Outcome MAO-WM-01 is comprehensively covered in the Maths Trek program. Students develop mathematical understanding, fluency, reasoning and problem-solving skills as they work through the sequence of topics, revision, investigations, problem-solving strategies and practice problems.

A student:
- develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01

Number and algebra

Mathematical concept	Outcomes	Content		Topics, investigations and problem-solving		
Representing whole numbers B	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • applies an understanding of place value and the role of zero to read, write and order two- and three-digit numbers MA1-RWN-01 • reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values MA1-RWN-02	**Use counting sequences of ones and tens flexibly**				
		• Identify the number before and after a given three-digit number	**1.3** Read, write and represent numbers to 150		**9.1** Read, write and represent numbers to 500	
		• Count forwards and backwards by tens, on and off the decade, with two- and three-digit numbers	**2.1** Number patterns beyond 100		**5.1** Number lines to 500 **20.2** Number lines to 1000	
		• Identify how many more to the next multiple of ten within two- and three-digit numbers	**5.1** Number lines to 500		**20.2** Number lines to 1000	
		Form, regroup and rename three-digit numbers				
		• Count and represent large sets of objects by systematically grouping in tens and hundreds	**1.2** Tens and ones with blocks **1.3** Read, write and represent numbers to 150 **2.3** Grouping to count collections		**9.1** Read, write and represent numbers to 500 **18.4** Solving a simpler problem	
		• Use models such as base 10 material and interlocking cubes to represent and explain grouping	**1.2** Tens and ones with blocks **1.3** Read, write and represent numbers to 150 **3.2** Place value to hundreds		**11.1** Place value to hundreds **14.1** Number expanders **23.1** Place value to 999	
		• State the quantity value of digits in numbers of up to three digits (Reasons about quantity)	**3.2** Place value to hundreds **11.1** Place value to hundreds **12.1** The role of a zero		**14.2** Expanded notation **17.1** Place value problems **18.1** Expanded notation	
		• Identify the nearest hundred to a number	**5.1** Number lines to 500		**20.2** Number lines to 1000	
		• Recognise units of 100	**11.1** Place value to hundreds		**23.1** Place value to 999	

Stage 1B Syllabus Match — Maths Trek 2

Number and algebra

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving			
Representing whole numbers B cont.		• Use place value to partition and rename three-digit numbers in different ways (Reasons about relations)	**3.2** Place value to hundreds **11.1** Place value to hundreds **12.1** The role of a zero **14.1** Number expanders **14.2** Expanded notation		**18.1** Expanded notation **22.2** Regrouping and renaming numbers **30.1** Regrouping and renaming numbers	
		• Estimate, to the nearest hundred, the number of objects in a collection and check by grouping and counting	**3.2** Place value to hundreds			
Combining and separating quantities B	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning MA1-CSQ-01	**Represent and reason about additive relations** • Create, record and recognise combinations of two numbers that add to numbers from 11 up to and including 20	**2.2** Addition using ten frames **4.1** Partitioning to 20		**4.2** Addition facts **7.2** Addition using friendly pairs	
		• Create, model and solve word problems, using number sentences	**7.2** Addition using friendly pairs **11.2** Addition with bar models **15.1** Subtraction with bar models **20.3** Problem-solving with money		**24.3** Addition and subtraction with bar models **26.1** Addition and subtraction problems **INV** Showtime	
		• Represent the difference between two numbers using concrete materials and diagrams	**8.1** Subtraction facts			
		• Represent a constant difference between pairs of numbers	**8.1** Subtraction facts			
		• Model how addition and subtraction are inverse operations using concrete materials, drawings and diagrams	**10.3** Addition and subtraction facts are related			
		• Recall and use related addition and subtraction number facts to at least 20	**10.3** Addition and subtraction facts are related			
		Form multiples of ten when adding and subtracting two-digit numbers • Add two-digit numbers by building to multiples of ten	**5.2** Addition using friendly jumps		**7.2** Addition using friendly pairs	
		• Add and subtract from a two-digit number and record on an empty number line	**5.2** Addition using friendly jumps **8.2** Subtraction using friendly jumps		**16.1** Addition using jump strategy **17.2** Subtraction using jump strategy	
		• Use quantity values to separate tens and ones for addition (only)	**10.2** Addition using split strategy		**11.2** Addition with bar models	
		• Use an inverse strategy to turn a subtraction into an addition (Reasons about relations)	**19.1** Inverse strategy of subtraction			

Stage 1B Syllabus Match

Maths Trek 2

Number and algebra

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving	
Combining and separating quantities B cont.		**Use knowledge of equality to solve related problems**		
		• Use number bonds to determine a missing number	**25.1** Solve problems using number bonds	
		• Use number knowledge to solve related problems (Reasons about relations)	**25.1** Solve problems using number bonds	
		• Use a variety of ways of writing number sentences	**25.1** Solve problems using number bonds	
		• Use number bonds to solve equality problems	**25.1** Solve problems using number bonds	
Forming groups B	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems MA1-FG-01	**Represent and explain multiplication as the combining of equal groups**		
		• Use objects, diagrams, images or actions to model multiplication as accumulating equal *groups*	**20.1** Multiplication as repeated addition	
		• Solve multiplication problems using repeated addition	**20.1** Multiplication as repeated addition	
		• Form arrays of equal rows and equal columns	**22.1** Groups and arrays	
		• Determine and distinguish between the *number of rows/columns* and the *number in each row/column* when describing collections of objects	**20.1** Multiplication as repeated addition	**22.1** Groups and arrays
		• Model the commutative property of multiplication, using an array (Reasons about relations)	**25.2** Multiplication using arrays	
		• Model division by deconstructing an array equally into a given number of rows or columns	**26.2** Division – How many in each group?	**27.3** Division – How many groups?
		Model doubling and halving with fractions		
		• Model doubling and halving groups and the relation between the processes	**27.2** Doubling and halving	
		• Re-create the whole given half	**27.1** Fractions as part of a group	
		• Use concrete materials to model a half, a quarter or an eighth of a collection, and explain their thinking	**27.1** Fractions as part of a group	

Stage 1B Syllabus Match — Maths Trek 2

Number and algebra

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving	
Forming groups B cont.		**Represent multiplication and division problems**		
		• Solve multiplication and division problems using objects, diagrams, images and actions	**26.2** Division – How many in each group? **27.3** Division – How many groups?	**30.2** Multiplication and division problems
		• Record answers to multiplication and division problems (including those with remainders) using drawings, words and numerals	**26.2** Division – How many in each group? **27.3** Division – How many groups?	**30.2** Multiplication and division problems

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving	
Geometric measure B	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • represents and describes the positions of objects in familiar locations MA1-GM-01 • measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres MA1-GM-02 • creates and recognises halves, quarters and eighths as part measures of a whole length MA1-GM-03	**Position: Explore simple maps of familiar locations**		
		• Make simple models from memory, photographs, drawings or descriptions	**9.3** Simple maps	
		• Interpret simple maps by identifying objects in different locations	**9.3** Simple maps	**15.2** Maps, pathways, directions
		• Create a path from one location to another	**15.2** Maps, pathways, directions	
		Length: Compare and order lengths, using appropriate uniform informal units		
		• Make and use a tape measure calibrated in uniform informal units	**INV** Marble ramp	
		• Compare and order two or more shapes according to their lengths using an appropriate uniform informal unit	**12.2** Measuring length	**23.3** Measuring length
		• Compare the lengths of two or more objects that cannot be moved or aligned (Reasons about relations)	**12.2** Measuring length	**23.3** Measuring length
		• Record length comparisons using drawings, numerals and words, and by referring to the uniform informal unit used	**12.2** Measuring length **23.3** Measuring length	**INV** Marble ramp

Stage 1B Syllabus Match

Maths Trek 2

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving
Geometric measure B cont.		**Length: Recognise and use formal units to measure the lengths of objects**	
		• Recognise the need for formal units to measure lengths and distances	**25.3** Measuring with metres
		• Use the metre as a unit to measure lengths and distances to the nearest metre or half-metre	**25.3** Measuring with metres
		• Record lengths and distances using the abbreviation for metres (m)	**25.3** Measuring with metres
		• Estimate lengths and distances to the nearest metre and check by measuring	**25.3** Measuring with metres
		• Recognise the need for a formal unit smaller than the metre	**26.3** Measuring with centimetres
		• Recognise that there are 100 centimetres in one metre	**26.3** Measuring with centimetres
		• Measure lengths to the nearest centimetre, using a device with 1-cm markings	**26.3** Measuring with centimetres
		• Record lengths and distances using the abbreviation for centimetres (cm)	**26.3** Measuring with centimetres
		• Estimate lengths and distances to the nearest centimetre and check by measuring	**26.3** Measuring with centimetres
		Length: Repeatedly halve lengths to form eighths	
		• Use materials to model an eighth of a whole length, highlighting the length	**30.3** Representing halves, quarters, eighths
		• Recognise when a length is divided into eight equal parts	**30.3** Representing halves, quarters, eighths

Stage 1B Syllabus Match | Maths Trek 2

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving			
Two-dimensional spatial structure B	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • recognises, describes and represents shapes including quadrilaterals and other common polygons MA1-2DS-01 • measures and compares areas using uniform informal units in rows and columns MA1-2DS-02	**2D shapes: Represent, combine and separate two-dimensional shapes**				
		• Make representations of two-dimensional shapes and combinations of shapes in different orientations	**8.3**	Classifying 2D shapes	**11.3**	Features of shapes
		• Combine and split single shapes and arrangements of shapes to form new shapes (Reasons about spatial relations)	**8.3**	Classifying 2D shapes		
		2D shapes: Identify and describe the orientation of shapes using quarter turns				
		• Identify full, half and quarter turns of a single shape and describe the movement of the shape	**31.3**	Turns		
		• Identify and describe directions of turns as 'left turn', 'right turn', 'clockwise' or 'anti-clockwise'	**31.3**	Turns		
		• Connect the use of quarter and half turns to the turn of the minute hand on a clock for the passing of quarter and half-hours (Reasons about relations)	**31.3**	Turns		
		• Perform full, half and quarter turns with a single shape	**31.3**	Turns		
		• Describe the result of a turn of a shape	**31.3**	Turns		
		• Determine the repeating pattern formed by quarter turns[1]	**31.3**	Turns		
		Area: Compare rectangular areas using uniform square units of an appropriate size in rows and columns				
		• Cover rectangular surfaces by creating repeated rows of square tiles	**7.3**	Measuring area		
		• Use a single square to create the array structure of area in rows and columns	**7.3**	Measuring area		
		• Use the structure of repeated units to find the area of a rectangle	**7.3**	Measuring area		
		• Explain how the grid structure of rows and columns helps to find the area (Reasons about spatial structure)	**28.2**	Measuring and comparing area of rectangles		

Stage 1B Syllabus Match

Maths Trek 2

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving
Two-dimensional spatial structure B cont.		• Compare the areas of two or more surfaces that cannot be moved, or superimposed, by measuring in uniform informal units	**28.2** Measuring and comparing area of rectangles
		• Record comparisons of area using drawings, numerals and words, and by referring to the uniform informal unit used	**28.2** Measuring and comparing area of rectangles
Three-dimensional spatial structure B	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • recognises, describes and represents familiar three-dimensional objects MA1-3DS-01 • measures, records, compares and estimates internal volumes (capacities) and volumes using uniform informal units MA1-3DS-02	**3D objects: Describe the features of three-dimensional objects**	
		• Describe three-dimensional objects (prisms) using the terms 'face', 'edge' and 'vertex'	**12.3** Classifying objects **17.3** Objects and their faces **16.2** Faces, edges, vertices
		• Represent three-dimensional objects by making simple models	**16.2** Faces, edges, vertices **17.3** Objects and their faces
		• Recognise and name flat surfaces of three-dimensional objects as two-dimensional shapes	**17.3** Objects and their faces
		Volume: Compare containers based on internal volume (capacity) by filling and packing	
		• Make and use a device for measuring internal volume (capacity) calibrated in uniform informal units	**24.2** Measuring capacity
		• Compare, order and record the internal volumes (capacities) of two or more containers by measuring each container in uniform informal units	**24.2** Measuring capacity
		• Estimate internal volume (capacity) by referring to the number and type of uniform informal unit used	**24.2** Measuring capacity
		Volume: Compare volumes using uniform informal units	
		• Estimate the volumes of two or more models and check by counting the number of blocks used in each model	**23.2** Packing and stacking
		• Compare models with different appearances, recognising when they have the same volume (Reasons about spatial structure)	**23.2** Packing and stacking
		• Record the results of volume comparisons using drawings, numerals and words, referring to the units used	**23.2** Packing and stacking
		• Explain that models made of the same number of units may have different volumes depending on the size of the units used (Reasons about spatial relations)	**23.2** Packing and stacking

Stage 1B Syllabus Match

Maths Trek 2

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving			
Non-spatial measure B	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • measures, records, compares and estimates the masses of objects using uniform informal units MA1-NSM-01 • describes, compares and orders durations of events, and reads half- and quarter-hour time MA1-NSM-02	**Mass: Compare the masses of objects using an equal-arm balance**				
		• Use uniform informal units to measure the mass of an object by counting the number of units needed to obtain a level balance on an equal-arm balance	**15.3** Measuring and comparing mass		**16.3** Measuring and comparing mass	
		• Select an appropriate uniform informal unit to measure the mass of an object and justify the choice (Reasons about relations)	**15.3** Measuring and comparing mass			
		• Explain the relationship between the mass of a unit and the number of units needed (Reasons about relations)	**15.3** Measuring and comparing mass		**16.3** Measuring and comparing mass	
		• Compare the masses of two or more objects using the same informal units	**15.3** Measuring and comparing mass		**16.3** Measuring and comparing mass	
		• Estimate mass by referring to the number and type of uniform informal unit used and check by measuring	**15.3** Measuring and comparing mass		**16.3** Measuring and comparing mass	
		• Recognise that mass is conserved	**15.3** Measuring and comparing mass			
		Time: Describe duration using units of time				
		• Use a calendar to calculate the number of months, weeks or days until an upcoming event	**3.1** Months of the year **5.3** Calendars		**31.2** Reading calendars **INV** All about birthdays	
		• Estimate and measure the duration of an event using a repeated informal unit	**28.1** Hours, minutes, seconds			
		• Compare and order the duration of events measured using a repeated informal unit	**28.1** Hours, minutes, seconds			
		• Use the terms 'hour', 'minute' and 'second'	**28.1** Hours, minutes, seconds			
		• Compare the duration of standard time units	**28.1** Hours, minutes, seconds			
		• Make predictions about the time remaining until a particular event starts or finishes (Reasons about relations)				

Stage 1B Syllabus Match

Maths Trek 2

Measurement and space

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving
Non-spatial measure B cont.		**Time: Tell time to the quarter-hour using the language of 'past' and 'to'**	
		• Read analog clocks to the quarter-hour using the terms 'past' and 'to'	**18.3** Time – o'clock, half past **22.3** Time – quarter past, quarter to **19.3** Time – quarter past, half past
		• Describe the position of the hands on a clock for quarter past and quarter to and relate this to quarter turns	**19.3** Time – quarter past, half past **22.3** Time – quarter past, quarter to
		• Identify which hour has just passed when the hour hand is not pointing to a numeral	**18.3** Time – o'clock, half past **22.3** Time – quarter past, quarter to **19.3** Time – quarter past, half past
		• Record quarter-past and quarter-to time on analog and digital clocks	**19.3** Time – quarter past, half past **22.3** Time – quarter past, quarter to
		• Associate the numerals 3, 6 and 9 with 15, 30 and 45 minutes and with the terms 'quarter past', 'half past' and 'quarter to', respectively	**19.3** Time – quarter past, half past **22.3** Time – quarter past, quarter to

Stage 1B Syllabus Match　　　　　　　　　　Maths Trek 2

Statistics and probability

Mathematical concept	Outcomes	Content	Topics, investigations and problem-solving			
Data B	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • gathers and organises data, displays data in lists, tables and picture graphs MA1-DATA-01 • reasons about representations of data to describe and interpret the results MA1-DATA-02	**Identify a question of interest and gather relevant data**				
		• Pose suitable questions where the answers form categories, and predict the likely responses	**3.3**	Picture graphs		
		• Collect data on familiar topics	**3.3**	Picture graphs	**4.3**	Collecting data using tally marks
		• Sort data into relevant categories	**3.3**	Picture graphs	**4.3**	Collecting data using tally marks
		Create displays of data and interpret them				
		• Organise collected data into lists and tables to display information	**4.3**	Collecting data using tally marks		
		• Represent data in a picture graph using a baseline, equal spacing and same-sized symbols	**3.3**	Picture graphs	**INV**	All about birthdays
		• Give reasons why some representations of data are misleading (Reasons about relations)	**3.3**	Picture graphs		
		• Interpret information presented in tables and picture graphs (Reasons about relations)	**3.3** **4.3**	Picture graphs Collecting data using tally marks	**31.1** **INV**	Interpreting graphs All about birthdays
		• Record answers to questions using the information in tables and picture graphs	**3.3** **4.3**	Picture graphs Collecting data using tally marks	**31.1** **INV**	Interpreting graphs All about birthdays
Chance B	A student: • develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 • recognises and describes the element of chance in everyday events MA1-CHAN-01	**Identify and describe activities that involve chance**				
		• Describe possible outcomes in everyday activities and events as being *likely* or *unlikely* to happen	**24.1**	Chance – How likely?		
		• Compare familiar activities and events and describe them as being *more* or *less* likely to happen (Reasoning about relations)	**24.1**	Chance – How likely?		
		• Describe familiar events as being *possible*	**28.3**	Certain, possible, impossible		