



Maths Trek

NSW Syllabus Match
Early Stage 1
NSW Syllabus Edition

Refer to the tables to see how the Maths Trek NSW Syllabus Edition topics match the NSW Mathematics Syllabus for Early Stage 1.

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
Representing whole numbers	A student: <ul style="list-style-type: none"> 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	
		<ul style="list-style-type: none"> 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
		<ul style="list-style-type: none"> Identify the number of items in different arrangements 	2.2 Count to three 3.2 Four
		Use the counting sequence of ones flexibly	
		<ul style="list-style-type: none"> 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
		<ul style="list-style-type: none"> Identify and distinguish the 'teen' numbers from multiples of ten with the same initial sounds 	29.2 Count to 30
		<ul style="list-style-type: none"> Count backwards from a given number 20 or less 	13.2 Count backwards from 10 28.2 Count forwards and backwards
		<ul style="list-style-type: none"> 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	
		<ul style="list-style-type: none"> Recognise dice and domino dot patterns 	9.1 Dot patterns
		<ul style="list-style-type: none"> Recognise different finger patterns for the same number 	Included in all topics that introduce numbers to 10.

Early Stage 1 Syllabus Match

Maths Trek K

Number and algebra

Mathematical concept	Outcomes	Content	Topics
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 7.1 Eight
			1.2 Two 7.2 Nine
			2.1 Three 7.3 Ten
			3.2 Four 8.1 Zero
			3.3 Five 16.2 Numbers 11 to 15
			4.3 Six 16.3 Count collections
			4.4 Seven 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 8.1 Zero
			1.2 Two 8.3 Represent numbers to 10
			2.1 Three 16.2 Numbers 11 to 15
			3.2 Four 16.3 Count collections
			3.3 Five 17.2 Numbers 16 to 20
			4.3 Six 17.3 Count collections
			4.4 Seven 19.2 Represent numbers 11 to 15
			7.1 Eight 20.2 Represent numbers 16 to 20
			7.2 Nine 30.2 Use ten frames to represent numbers to 20
			7.3 Ten
		• 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
Combining and separating quantities	<p>A student:</p> <ul style="list-style-type: none"> 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
		Separate and take away part of a group of objects to model subtraction	23.1 Model subtraction 23.2 Subtraction stories
		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
		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
		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
		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
		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
			7.2 Nine 7.3 Ten
			13.3 Partition 10 21.2 Make 10 29.3 Add more to make 10
			33.4 Find the missing group 34.3 Shopping
			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
Forming groups	A student: <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Copy and continue repeating patterns using sounds and/or actions 	19.3 Copy a pattern
		<ul style="list-style-type: none"> 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
		Investigate and form equal groups by sharing <ul style="list-style-type: none"> 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
		<ul style="list-style-type: none"> Group and share concrete materials by distributing objects one by one or using another method 	30.1 Share equally
		Record grouping and sharing <ul style="list-style-type: none"> Label the number of objects in a group 	30.1 Share equally 31.1 Share equally
		<ul style="list-style-type: none"> Record grouping and sharing using drawings, words and numerals, and explain their thinking (Reasons about relations) 	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
Geometric measure	<p>A student:</p> <ul style="list-style-type: none"> 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

Early Stage 1 Syllabus Match

Maths Trek K

Measurement and space

Mathematical concept	Outcomes	Content	Topics
Two-dimensional spatial structure	<p>A student:</p> <ul style="list-style-type: none"> 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 area
		Predict which of two surfaces will have the larger area and justify the answer (Reasons about spatial relations)	35.2 Compare area
		Compare areas of two similar shapes directly by drawing, tracing, or cutting and pasting	9.2 Area

Early Stage 1 Syllabus Match

Maths Trek K

Measurement and space

Mathematical concept	Outcomes	Content	Topics
Three-dimensional spatial structure	<p>A student:</p> <ul style="list-style-type: none"> 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 <i>volume</i> 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
Non-spatial measure	A student: <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Identify that objects can be heavy or light Compare two masses directly 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) 	19.4 Heavy and light 20.3 Compare mass by hefting 21.4 Heavier, lighter, the same as
		Time: Compare and order the duration of events using the language of time <ul style="list-style-type: none"> Use terms such as 'daytime', 'night-time', 'morning', 'afternoon', 'today', 'tomorrow', 'yesterday', 'before', 'after' and 'next' Sequence events in time Compare the duration of two events 	7.4 Events in my day 12.2 Yesterday, today, tomorrow 30.4 Sequence events 18.1 Duration of events
		Time: Connect days of the week to familiar events and actions <ul style="list-style-type: none"> Recall that there are seven days in a week Name and order the days of the week Identify events that occur daily and relate events to a particular day or time of day 	8.4 Days of the week: The Hungry Caterpillar 8.4 Days of the week: The Hungry Caterpillar 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 <ul style="list-style-type: none"> Create the layout of an analog clock Read analog and digital clocks to the hour using the term 'o'clock' Describe the position of the hour and minute hands on an analog clock when reading hour time 	4.2 O'clock 4.2 O'clock 4.2 O'clock 33.1 Analog and digital time

Early Stage 1 Syllabus Match

Maths Trek K

Statistics and probability

Mathematical concept	Outcomes	Content	Topics
Data	A student: <ul style="list-style-type: none"> 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 31.3 Collect data 26.1 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 31.3 Collect data 26.1 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 31.3 Collect data 26.1 Collect data 35.3 Interpret data displays 27.2 Data displays

* Where required, investigations are listed in addition to the topics to fully cover the Syllabus Content.