Scope & Sequence Overview - Stage 1, Year 1

Whole Numbers 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- uses objects, diagrams and technology to explore mathematical problems - MA1-2WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- applies place value, informally, to count, order, read and represent two- and three-digit numbers - MA1-4N

Vocabulary

count forwards, count backwards, number before, number after, more than, less than, number line, number chart, digit, zero, ones, groups of ten, tens, groups of one hundred, hundreds, round to, coins, notes, cents, dollars.

	T1	T2	T3	T4
Develop confidence with number sequences to 100 by ones from any starting point				
• count forwards and backwards by ones from a given two-digit number	MR	MR		
• identify the number before and after a given two-digit number	MR	MR		
• read and use the ordinal names to at least 'thirty-first', e.g. when reading calendar dates				
Count collections to 100 by partitioning numbers using place value				
• count and represent large sets of objects by systematically grouping in tens				
• use place value to partition two-digit numbers, e.g. 32 as 3 groups of ten and 2 ones				
• state the place value of digits in two-digit numbers, e.g. 'In the number 32, the "3" represents 30 or 3 tens'				
• partition two-digit numbers in non-standard forms, e.g. 32 as 32 ones or 2 tens and 12 one				
Recognise, model, read, write and order numbers to at least 100; locate these numbers on a number line				
• represent two-digit numbers using objects, pictures, words and numerals				
• locate and place two-digit numbers on a number line				
• apply an understanding of place value and the role of zero to read, write and order two-digit numbers				
• use number lines and number charts to assist with counting and ordering	MR	MR	MR	MR
• round numbers to the nearest ten				
• estimate, to the nearest ten, the number of objects in a collection and check by counting, e.g. estimate the number of children in a room to the nearest ten				
• solve simple everyday problems with two-digit numbers				
Recognise, describe and order Australian coins according to their value				
• recognise Australian money including notes and coins				
• recognise common symbols and terms used on a variety of Australian notes and coins				
• identify, sort, order and count money using the appropriate language in everyday contexts, e.g. coins, notes, cents, dollars				
• recognise that total amounts can be made using different denominations, e.g. 20 cents can be made using a single coin or two 10-cent coins				
• recognise the symbols for dollars ($) and cents (c)				
• recognise that money is limited and comes from a variety of sources				

Whole Numbers 2

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- uses objects, diagrams and technology to explore mathematical problems - MA1-2WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- applies place value, informally, to count, order, read and represent two- and three-digit numbers - MA1-4NA

Vocabulary

count forwards, count backwards, number before, number after, more than, less than, number line, number chart, digit, zero, ones, groups of ten, tens, groups of one hundred, hundreds, round to, coins, notes, cents, dollars.

	T1	T2	T3	T4
Investigate number sequences, initially those increasing and decreasing by twos, threes, fives and tens from any starting point, then moving to other sequences				
• count forwards and backwards by twos, threes and fives from any starting point				
• count forwards and backwards by tens, on and off the decade, with two digit numbers, e.g. 40, 30, 20, … (on the decade); 427, 437, 447, … (off the decade)				
• identify number sequences on number charts				

*** MR denotes content taught in Morning Routine ***

Addition and Subtraction 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- uses objects, diagrams and technology to explore mathematical problems - MA1-2WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- applies place value, informally, to count, order, read and represent two- and three-digit numbers - MA1-4NA

Vocabulary

counting on, counting back, combine, plus, add, take away, minus, the difference between, total, more than, less than, double, equals, is equal to, is the same as, number sentence, Empty number line, strategy.

	T1	T2	T3	T4
Represent and solve simple addition and subtraction problems using a range of strategies, including counting on, partitioning and rearranging parts				
• use the terms 'add', 'plus', 'equals', 'is equal to', 'take away', 'minus' and the 'difference between'				
• use concrete materials to model addition and subtraction problems involving one- and two-digit numbers				
• use concrete materials and a number line to model and determine the difference between two numbers				
• recognise and use the symbols for plus (+), minus (–) and equals (=)				
• record number sentences in a variety of ways using drawings, words, numerals and mathematical symbols			MR	MR
• recognise, recall and record combinations of two numbers that add to 10				
• create, record and recognise combinations of two numbers that add to numbers up to and including 9				
• investigate and generalise the effect of adding zero to a number, e.g. 'Adding zero to a number does not change the number'				
• use concrete materials to model the commutative property for addition and apply it to aid the recall of addition facts, e.g. 4 + 5 = 5 + 4				
• relate addition and subtraction facts for numbers to at least 20, e.g. 5 + 3 = 8, so 8 – 3 = 5 and 8 – 5 = 3				
• use and record a range of mental strategies to solve addition and subtraction problems involving one- and two-digit numbers, including: – counting on from the larger number to find the total of two numbers – counting back from a number to find the number remaining – counting on or back to find the difference between two numbers – using doubles and near doubles, e.g. 5 + 7: double 5 and add 2 – combining numbers that add to 10, e.g. 4 + 7 + 8 + 6 + 3: first combine 4 and 6, and 7 and 3, then add 8 – bridging to 10, e.g. 17 + 5: 17 and 3 is 20, then add 2 more – using place value to partition numbers, e.g. 25 + 8: 25 is 20 + 5, so 25 + 8 is 20 + 5 + 8, which is 20 + 13				

Multiplication and Division 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- uses a range of mental strategies and concrete materials for multiplication and division - MA1-6NA

Vocabulary

group, number of groups, number in each group, sharing, shared between, left over, total, equal, add, take away, row, column, array, number of rows, number of columns, number in each row, number in each column, , is the same as, shared between, shared equally, part left over, empty number line, number chart.

	T1	T2	T3	T4
Skip count by twos, fives and tens starting from zero				
• count by twos, fives and tens using rhythmic counting and skip counting from zero	MR	MR		
Model and use equal groups of objects as a strategy for multiplication				
• model and describe collections of objects as 'groups of'				
• find the total number of objects using skip counting				
Recognise and represent division as grouping into equal sets				
• recognise when there are equal numbers of items in groups, e.g. 'There are three pencils in each group'				
• model division by sharing a collection of objects equally into a given number of groups to determine how many in each group, e.g. determine the number in each group when 10 objects are shared between two people				

*** MR denotes content taught in Morning Routine ***

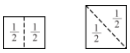
Fractions and Decimals 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- represents and models halves, quarters and eighths - MA1-7NA

Vocabulary

whole, part, equal parts, half, halves, about a half, more than a half, less than a half. quarter, eighth, one-half, one-quarter, one-eighth, halve (verb).

	T1	T2	T3	T4
Recognise and describe one-half as one of two equal parts of a whole				
• use concrete materials to model half of a whole object, e.g.				
• recognise that halves refer to two equal parts of a whole				
• describe parts of a whole object as 'about a half', 'more than a half' or 'less than a half'				
• record two equal parts of whole objects and shapes, and the relationship of the parts to the whole, using pictures and the fraction notation for half $\left(\frac{1}{2}\right)$, e.g. 				
• use concrete materials to model half of a collection, e.g. 				
• record two equal parts of a collection, and the relationship of the parts to the whole, using pictures and fraction notation for half , e.g. 				

Fractions and Decimals 2

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- represents and models halves, quarters and eighths - MA1-7NA

Vocabulary

whole, part, equal parts, half, halves, about a half, more than a half, less than a half. quarter, eighth, one-half, one-quarter, one-eighth, halve (verb).

	T1	T2	T3	T4
Recognise and interpret common uses of halves, quarters and eighths of shapes and collections Unit 2)				
• use concrete materials to model a half, a quarter or an eighth of a whole object, e.g. divide a piece of ribbon into quarters				
• use fraction language in a variety of everyday contexts, e.g. the half-hour, one-quarter of the class				MR

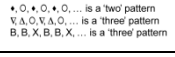
Patterns and Algebra 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- uses objects, diagrams and technology to explore mathematical problems - MA1-2WM
- creates, represents and continues a variety of patterns with numbers and objects - MA1-8NA

Vocabulary

pattern, number line, number chart, odd, even, missing number, number sentence.

	T1	T2	T3	T4
Investigate and describe number patterns formed by skip counting and patterns with objects				
• identify and describe patterns when skip counting forwards or backwards by ones, twos, fives and tens from any starting point				
• represent number patterns on number lines and number charts				
• recognise, copy and continue given number patterns that increase or decrease, e.g. 1, 2, 3, 4, … 20, 18, 16, 14, …				
• create, record and describe number patterns that increase or decrease				
• recognise, copy and continue patterns with objects or symbols				
• create, record and describe patterns with objects or symbols				
• describe a repeating pattern of objects or symbols in terms of a 'number' pattern, e.g. 				
• model and describe 'odd' and 'even' numbers using counters paired in two rows				

*** MR denotes content taught in Morning Routine ***

Patterns and Algebra 2

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- uses objects, diagrams and technology to explore mathematical problems - MA1-2WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- creates, represents and continues a variety of patterns with numbers and objects - MA1-8NA

Vocabulary

pattern, number line, number chart, odd, even, missing number, number sentence.

	T1	T2	T3	T4
Solve problems by using number sentences for addition or subtraction				
• solve problems involving addition or subtraction by using number sentences				

Length 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- measures, records, compares and estimates lengths and distances using uniform informal units, metres and centimetres - MA1-9MG

Vocabulary

length, distance, end, end-to-end, side-by-side, gap, overlap, measure, estimate, handspan, straight line, curved line, metre, centimetre, measure, estimate.

	T1	T2	T3	T4
Measure and compare the lengths of pairs 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				
• record lengths and distances by referring to the number and type of uniform informal unit used				
• 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				

Length 2

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- measures, records, compares and estimates lengths and distances using uniform informal units, metres and centimetres - MA1-9MG

Vocabulary

length, distance, end, end-to-end, side-by-side, gap, overlap, measure, estimate, handspan, straight line, curved line, metre, centimetre, measure, estimate.

	T1	T2	T3	T4
Compare and order several shapes and objects based on length, using appropriate uniform informal units				
• relate the term 'length' to the longest dimension when referring to an object				
• make and use a tape measure calibrated in uniform informal units, e.g. calibrate a paper strip using footprints as a repeated unit				
• record length comparisons informally using drawings, numerals and words, and by referring to the uniform informal unit used				

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Area 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- measures, records, compares and estimates areas using uniform informal units - MA1-10MG

Vocabulary

area, surface, measure, grid, column, row, column, gap, overlap, parts of (units), estimate.

	T1	T2	T3	T4
Measure and compare the lengths of pairs of objects using uniform informal units				
• compare, indirectly, the areas of two surfaces that cannot be moved or superimposed, e.g. by cutting paper to cover one surface and superimposing the paper over the second surface				
• predict the larger of the areas of two surfaces of the same general shape and compare these areas by cutting and covering				
• use uniform informal units to measure area by covering the surface in rows or columns without gaps or overlaps				
• record areas by referring to the number and type of uniform informal unit used, e.g. 'The area of this surface is 20 tiles'				

Volume and Capacity 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- measures, records, compares and estimates volumes and capacities using uniform informal units - MA1-11MG

Vocabulary

capacity, container, liquid, full, empty, volume, gap, measure, estimate.

	T1	T2	T3	T4
Measure and compare the capacities of pairs of objects using uniform informal units				
• use uniform informal units to measure the capacities of containers by counting the number of times a smaller container can be filled and emptied into the container being measured				
• record capacities by referring to the number and type of uniform informal unit used				
• compare the capacities of two or more containers using appropriate uniform informal units				
• estimate capacities by referring to the number and type of uniform informal unit used and check by measuring				
• pack cubic units (e.g. blocks) into rectangular containers so that there are no gaps				
• measure the volume of a container by filling the container with uniform informal units and counting the number of units used, e.g. the number of blocks a box can hold				
• record volumes by referring to the number and type of uniform informal unit used				
• estimate volumes of containers by referring to the number and type of uniform informal unit used and check by measuring				
• estimate the volume of a pile of material and check by measuring, e.g. estimate how many buckets would be used to form a pile of sand				

Mass 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- measures, records, compares and estimates the masses of objects using uniform informal units - MA1-12MG

Vocabulary

mass, heavy, heavier, light, lighter, about the same as, pan balance, (level) balance. measure, estimate.

	T1	T2	T3	T4
Investigate mass using a pan balance				
• identify materials that are light or heavy				
• place objects on either side of a pan balance to obtain a level balance				
• use a pan balance to compare the masses of two objects				
• sort objects on the basis of their mass				
• use a pan balance to find two collections of objects that have the same mass, e.g. a collection of blocks and a collection of counters				
• use drawings to record findings from using a pan balance				

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Mass 2

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- uses objects, diagrams and technology to explore mathematical problems - MA1-2WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- measures, records, compares and estimates the masses of objects using uniform informal units - MA1-12MG

Vocabulary

mass, heavy, heavier, light, lighter, about the same as, pan balance, (level) balance. measure, estimate.

	T1	T2	T3	T4
Compare the masses of objects using balance scales				
• compare and order the masses of two or more objects by hefting and check using a pan 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 a pan balance				

Time 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- uses objects, diagrams and technology to explore mathematical problems - MA1-2WM
- describes, compares and orders durations of events, and reads half- and quarter-hour time - MA1-13MG

Vocabulary

calendar, days, week, date, month, year, seasons, time, clock, analog, digital, hour hand, minute hand, o'clock, half past, clockwise, numeral, hour, minute, second, o'clock, half past, quarter past, quarter to.
'Hour hand' and 'minute hand', rather than 'big hand' and 'little hand', should be used to promote understanding of their respective functions.

	T1	T2	T3	T4
Name and order months and seasons				
• name and order the months of the year			MR	MR
Tell time to the half-hour				
• read analog and digital clocks to the half-hour using the terms 'o'clock' and 'half past'				

Time 2

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- uses objects, diagrams and technology to explore mathematical problems - MA1-2WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- describes, compares and orders durations of events, and reads half- and quarter-hour time - MA1-13MG

Vocabulary

calendar, days, week, date, month, year, seasons, time, clock, analog, digital, hour hand, minute hand, o'clock, half past, clockwise, numeral, hour, minute, second, o'clock, half past, quarter past, quarter to.
'Hour hand' and 'minute hand', rather than 'big hand' and 'little hand', should be used to promote understanding of their respective functions.

	T1	T2	T3	T4
Describe duration using months, weeks, days and hours				
• use a calendar to calculate the number of months, weeks or days until an upcoming event				
• estimate and measure the duration of an event using a repeated informal unit, e.g. the number of times you can clap your hands while the teacher writes your name				
• compare and order the duration of events measured using a repeated informal unit, e.g. 'It takes me ten claps to write my name but only two claps to say my name'				

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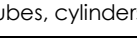
3D Space 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- sorts, describes, represents and recognises familiar three-dimensional objects, including cones, cubes, cylinders, spheres and prisms - MA1-14MG

Vocabulary

object, shape, two-dimensional shape (2D shape), three-dimensional object (3D object), cone, cube, cylinder, sphere, prism, surface, flat surface, curved surface, face, edge, vertex (vertices)

	T1	T2	T3	T4
Recognise and classify familiar three-dimensional objects using obvious features				
• manipulate and describe familiar three-dimensional objects, including cones, cubes, cylinders, spheres and prisms				
• identify and name familiar three-dimensional objects, including cones, cubes, cylinders, spheres and prisms, from a collection of everyday objects				
• use the terms 'surface', 'flat surface' and 'curved surface' in describing familiar three-dimensional objects				
• use the term 'face' to describe the flat surfaces of three-dimensional objects with straight edges, including squares, rectangles and triangles				
• sort familiar three-dimensional objects according to obvious features, e.g. 'All these objects have curved surfaces'				
• select and name a familiar three-dimensional object from a description of its features, e.g. find an object with six square faces				
• recognise that three-dimensional objects look different from different vantage points				
• identify cones, cubes, cylinders and prisms when drawn in different orientations, e.g. 		MR		
• recognise familiar three-dimensional objects from pictures and photographs, and in the environment				

2D Space 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- manipulates, sorts, represents, describes and explores two-dimensional shapes, including quadrilaterals, pentagons, hexagons and octagons - MA1-15MG

Vocabulary

shape, circle, triangle, quadrilateral, square, rectangle, pentagon, hexagon, octagon, orientation, features, side, vertex (vertices), vertical, horizontal, portrait (orientation), landscape (orientation), parallel, two-dimensional shape (2D shape), symmetry, slide, flip, turn, full-turn, half-turn, quarter-turn, clockwise, anti-clockwise.

	T1	T2	T3	T4
Recognise and classify familiar two-dimensional shapes using obvious features				
• identify vertical and horizontal lines in pictures and the environment and use the terms 'vertical' and 'horizontal' to describe such lines			MR	
• identify parallel lines in pictures and the environment and use the term 'parallel' to describe such lines			MR	
• manipulate, compare and describe features of two-dimensional shapes, including triangles, quadrilaterals, pentagons, hexagons and octagons				
• sort two-dimensional shapes by a given attribute, e.g. by the number of sides or vertices				
• identify and name two-dimensional shapes presented in different orientations according to their number of sides, including using the terms 'triangle', 'quadrilateral', 'pentagon', 'hexagon' and 'octagon'				

2D Space 2

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- manipulates, sorts, represents, describes and explores two-dimensional shapes, including quadrilaterals, pentagons, hexagons and octagons - MA1-15MG

Vocabulary

shape, circle, triangle, quadrilateral, square, rectangle, pentagon, hexagon, octagon, orientation, features, side, vertex (vertices), vertical, horizontal, portrait (orientation), landscape (orientation), parallel, two-dimensional shape (2D shape), symmetry, slide, flip, turn, full-turn, half-turn, quarter-turn, clockwise, anti-clockwise.

	T1	T2	T3	T4
Describe and draw two-dimensional shapes, with and without the use of digital technologies				
• use the term 'two-dimensional' to describe plane (flat) shapes				

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Position 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- represents and describes the positions of objects in everyday situations and on maps - MA1-16MG

Vocabulary

position, left, right, directions, turn, location, map, path.

	T1	T2	T3	T4
Give and follow directions to familiar locations				
• use the terms 'left' and 'right' to describe the positions of objects in relation to themselves and from the perspective of a person facing in the opposite direction, e.g. 'The ball is on her left'				
• give and follow directions, including directions involving turns to the left and right, to move between familiar locations, e.g. within the classroom or school				
• give and follow instructions to position objects in models and drawings, e.g. 'Draw the bird between the two trees'				
• describe the path from one location to another on drawings				

Data 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- gathers and organises data, displays data in lists, tables and picture graphs, and interprets the results - MA1-17SP

Vocabulary

information, data, collect, gather, display, objects, symbol, tally mark, picture, row, category, picture graph, list, table, equal spacing, key, baseline.

	T1	T2	T3	T4
Choose simple questions and gather responses				
• investigate a matter of interest by choosing suitable questions to obtain appropriate data				
• gather data and track what has been counted by using concrete materials, tally marks, words or symbols				
Represent data with objects and drawings where one object or drawing represents one data value 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 (one-to-one correspondence), e.g. use different-coloured blocks to represent different-coloured cars				
• interpret information presented in data displays where one object, picture or drawing represents one data value, e.g. weather charts				

Chance 1

Outcomes

- describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols - MA1-1WM
- supports conclusions by explaining or demonstrating how answers were obtained - MA1-3WM
- recognises and describes the element of chance in everyday events - MA1-18SP

Vocabulary

will happen, might happen, won't happen, probably, chance, certain, uncertain, possible, impossible, likely, unlikely.

	T1	T2	T3	T4
Identify outcomes of familiar events involving chance and describe them using everyday language, such as 'will happen', 'won't happen' or 'might happen'				
• identify possible outcomes of familiar activities and events, e.g. the activities that might happen if the class is asked to sit on the floor in a circle				
• use everyday language to describe the possible outcomes of familiar activities and events, e.g. 'will happen', 'might happen', 'won't happen', 'probably'				

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