



Mathseeds Lessons and The Cambridge Primary Mathematics Curriculum Framework



STAGE 1

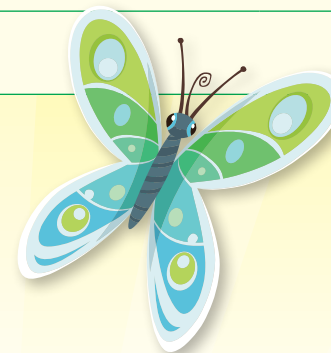
Content areas	Topics	Learning objectives	Codes	Mathseeds Lesson			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
				Online Lesson, Printable Resources, & Problem Solving Tasks	End-of-lesson Quiz	Critical Thinking and Problem Solving Interactives	Driving Tests (DT) Mental Minute (MM)	Printable Achievement Standards Assessment
NUMBER	Numbers and the number system	Recite numbers in order; Read and write numerals from 0 to 20; Count objects up to 20	1Nn1 1Nn2 1Nn3	1, 2, 3, 5, 7, 10, 11, 12, 14, 16, 17, 18, 19, 20, 21, 30, 33, 41, 43, 45, 46, 48, 50, 56		12, 41	DT Early Number 1-7, 9, 10, 13-19	Kindergarten Number Tests 1, 2
		Count on in tens to 100 or just over; Count on in twos	1Nn4 1Nn5	77, 79, 90				
		Begin partitioning two-digit numbers into tens and ones and reverse; Say the number that is 1 or 10 more or less	1Nn6 1Nn7	45, 46, 50			DT Early Number 11, 12	Kindergarten Number Test 4
		Use more or less to compare two numbers	1Nn8	22		41	DT Early Number 8, 20	Kindergarten Number Test 3
		Order numbers to at least 20 on a number track; use ordinal numbers	1Nn9	18, 20, 21, 25, 28, 31, 50, 56, 63			DT Early Number 24, 25	
		Use the = sign to represent equality	1Nn10	76				
		Find halves of small numbers and shapes by folding, and recognise which shapes are halved	1Nn12	61				
	Calculation: Mental strategies	Know all number pairs to 10; Begin to know number pairs to 6, 7, 8, 9 and 10; Add more than two small numbers, spotting pairs to 10	1Nc1 1Nc2 1Nc3	24, 30, 32, 34, 36, 40, 47, 49, 51		12, 19, 30, 34, 36, 40, 43, 47	DT Early Operations 3-5, 10-12, 16, 17, 22-25 MM Addition Sprints MM Subtraction Sprints	Kindergarten Operations Test 3
		Know doubles to at least double 5; Find near doubles	1Nc5 1Nc6	49, 72, 91			DT Early Operations 20	
		Begin to recognise multiples of 2 and 10	1Nc7	77, 79, 90				
	Calculation: Addition and subtraction	Understand addition as counting on and combining two sets; record related addition sentences	1Nc8	24, 30, 32, 34, 36, 40, 49		12, 19, 30, 34, 36, 40, 43	DT Early Operations 1, 2, 6, 7, 9	Kindergarten Operations Test 1
		Understand subtraction as counting back and 'take away'; record related subtraction sentences; Understand difference as 'how many more to make?'	1Nc9 1Nc10	47, 53, 58, 68		47	DT Early Operations 13, 14, 18, 19	Kindergarten Operations Test 2
		Add/subtract a single-digit number by counting on/back; Find two more or less than a number to 20, recording the jumps on a number line	1Nc11; 1Nc12	24, 30, 32, 34, 36, 40, 47, 49, 53, 58, 65, 68		12, 19, 30, 34, 36, 40, 43, 47	DT Early Operations 1, 2, 6, 7, 9, 13, 14, 18, 19	
		Begin to use the +, - and = signs to record calculations; Recognise the use of a sign to represent an unknown	1Nc14 1Nc17	24, 30, 32, 34, 36, 40, 47, 49, 51, 53, 58, 65, 68		30, 34, 36, 40, 43, 47	MM Addition Sprints MM Subtraction Sprints	
		Understand that changing the order of addition does not change the total; Add a pair of numbers by putting the larger number first and counting on; Begin to add single- and two-digit numbers	1Nc15 1Nc16 1Nc18	65				
	Calculation: Multiplication and division	Double any single-digit number	1Nc19	49, 72				
		Find halves of even numbers of objects up to 10; Share objects into two equal groups in a context	1Nc20 1Nc21	71, 74			DT Early Operations 8, 21	





STAGE 1 continued

Content areas	Topics	Learning objectives	Codes	Mathseeds Lesson			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
GEOMETRY	Shapes and geometric reasoning	Name and sort common 2D shapes. Use them to make patterns and models	1Gs1	4, 6, 8, 9, 15, 23, 27, 37, 69		6, 8, 15, 23, 27, 31, 37, 38, 40, 46	DT Early Geometry 1-8 DT Early Patterns 1-9	Kindergarten Geometry Tests 1, 3, 4
		Name and sort common 3D shapes. Use them to make patterns and models	1Gs2	35, 44, 62, 69			DT Early Geometry 15-23	Kindergarten Geometry Tests 2, 3
	Position and movement	Use everyday language of direction and distance to describe movement of objects	1Gp1	55, 57			DT Early Geometry 9-11, 13, 14	Kindergarten Geometry Test 5
MEASURE	Money	Recognise all coins and work out how to pay an exact sum using smaller coins	1Mm1	64				Kindergarten Number Test 5
	Length, mass and capacity	Compare lengths by direct comparison; Use comparative language	1Ml1 1Ml3	13, 26			DT Early Measurement 2, 3, 5, 6, 9, 10	Kindergarten Measurement Tests 1, 2, 3
		Compare weights by direct comparison; Use comparative language	1Ml1 1Ml3	29			DT Early Measurement 7, 8, 11, 12	Kindergarten Measurement Test 4
		Estimate and compare capacities by direct comparison; Use comparative language	1Ml2 1Ml3	38			DT Early Measurement 15, 16, 20	Kindergarten Measurement Test 5
	Time	Begin to understand and use some units of time	1Mt1	42				
		Read the time to the hour (o'clock) and know key times of day to the nearest hour	1Mt2	54				
		Order the days of the week and other familiar events	1Mt3	39, 42			DT Early Measurement 1, 4, 13, 14, 17-19	
HANDLING DATA	Organising, categorising and representing data	Answer a question by sorting and organising data or objects in a variety of ways.	1Dh1				DT Early Data 1-10	Kindergarten Data Tests 1, 2
PROBLEM SOLVING	Using techniques and skills in solving mathematical problems	Choose appropriate strategies to carry out calculations, explaining working out	1Pi1			12, 19, 30, 34, 36, 40, 43, 47		
		Explore number problems and puzzles	1Pi2			12, 41		
		Find many combinations	1Pi3			6, 8, 12, 15, 23, 27, 43		
		Decide to add or subtract to solve a simple word problem and represent it with objects	1Pi4			19, 30, 34, 36, 40, 43, 47		Kindergarten Operations Test 5
		Identify simple relationships between numbers and shapes	1Pi8			41		





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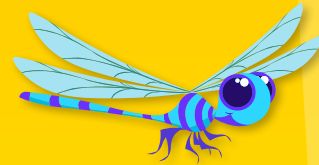


STAGE 2

Content areas	Topics	Learning objectives	Codes	Mathseeds Lesson			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
NUMBER	Numbers and the number system	Count, read and write numbers to at least 100 and back again; Count up to 100 objects	2Nn1 2Nn2	56, 60, 67, 75, 81, 86, 88		67	DT Grade 1 Number 1-4, 6, 8, 11-14, 16, 20-23	Grade 1 Number and Algebra: Whole Numbers Tests 1, 2, 3, 4, 5, 6, 7, 9
		Count on in ones and tens; Count in twos, fives and tens; Begin to count on in threes and fours	2Nn3 2Nn4 2Nn5	77, 79, 88, 90, 117		67, 77, 79	DT Grade 1 Patterns and Fractions 7-10, 12	Grade 1 Number and Algebra: Whole Numbers Tests 8, 9 Grade 1 Number and Algebra: Patterns Tests 1, 2, 3, 4, 5, 6, 7
		Know what each digit represents in two-digit numbers; partition into tens and ones; Find 1 or 10 more/less	2Nn6 2Nn7	56, 60, 67, 75, 81, 86, 88, 98		60, 67, 79, 81, 88, 95, 98	DT Grade 1 Number 5, 9, 10, 15, 17, 19, 24	Grade 1 Number and Algebra: Place Value All tests
		Round two-digit numbers to the nearest multiple of 10	2Nn8	129				
		Say a number between any given neighbouring pairs of multiples of 10; Place a two-digit number on a number line marked off in multiples of ten	2Nn9 2Nn10	56, 60, 67, 75, 81, 86		60		
		Recognise and use ordinal numbers up to at least 10th	2Nn11	63		63		
		Order numbers to 100; compare two numbers using the > and < signs; Give a sensible estimate of up to 100 objects	2Nn12 2Nn13	56, 60, 67, 75, 81, 86		83	DT Grade 1 Number 7, 18	Grade 1 Number and Algebra: Whole Numbers Tests 3, 4, 7, 8 Grade 1 Number and Algebra: Place Value Test 6
		Understand even and odd numbers and recognise these up to at least 20; Sort numbers, e.g. odd/even	2Nn14 2Nn15	108				
		Recognise that we write one half $\frac{1}{2}$, one quarter $\frac{1}{4}$ and three quarters $\frac{3}{4}$; Recognise that $\frac{2}{2}$ or $\frac{4}{4}$ make a whole and $\frac{1}{2}$ and $\frac{2}{4}$ are equivalent; Recognise which shapes are divided in halves or quarters and which are not; Find halves and quarters of shapes and small numbers of objects	2Nn16 2Nn17 2Nn18 2Nn19	61, 66			DT Grade 1 Patterns and Fractions 3, 5, 6, 11, 13, 14	Grade 1 Number and Algebra: Fractions and Money Tests 1, 2
	Calculation: Mental strategies	Find and learn by heart all number pairs to 10 and pairs with a total of 20; Partition all numbers to 20 into pairs and record the related addition and subtraction facts	2Nc1 2Nc2	65, 93		93, 95, 100	DT Grade 1 Operations 1-9, 12, 16 MM Addition Sprints MM Subtraction Sprints	Grade 1 Number and Algebra: Operations Tests 1, 2, 3
		Find and learn doubles for all numbers up to 10	2Nc5	72, 91		91		
	Calculation: Addition and subtraction	Relate counting on/back in tens to finding 10 more/less and then to adding and subtracting other multiples of 10	2Nc6	95, 98			DT Grade 1 Operations 13, 14, 17, 19, 20 MM Addition Sprints MM Subtraction Sprints	
		Use the = sign to represent equality	2Nc7	76		65, 67, 75, 76, 82, 85, 88	DT Grade 1 Operations 10, 11	
		Add four or five small numbers together	2Nc8	51, 65		51, 83		
		Add and subtract a single digit to and from a two-digit number; Add pairs of two-digit numbers; Find a small difference between pairs of two-digit numbers	2Nc11 2Nc12 2Nc13	53, 68, 85, 95, 96, 100		65, 95, 96, 100	DT Grade 1 Operations 15, 18 MM Addition Sprints MM Subtraction Sprints	Grade 1 Number and Algebra: Operations Tests 4, 5, 6
		Understand that addition can be done in any order, but subtraction cannot	2Nc14	93				
		Understand subtraction as both difference and take away	2Nc15	53, 58, 68, 85, 100		53, 56, 67		
	Calculation: Multiplication and division	Understand multiplication as repeated addition and use the \times sign; Understand multiplication as describing an array	2Nc16	111, 113, 115		79		
		Understand division as grouping and use the \div sign	2Nc18	71, 74, 136		71, 74		
		Use counting in twos, fives or tens to solve practical problems involving repeated addition	2Nc19	74, 77, 79		77, 79		

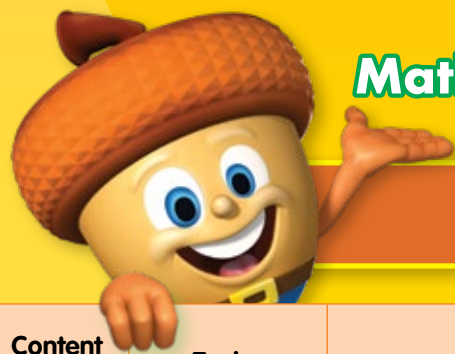


STAGE 2 continued



Content areas	Topics	Learning objectives	Codes	Mathseeds Lesson			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
				Online Lesson, Printable Resources, & Problem Solving Tasks	End-of-lesson Quiz	Critical Thinking and Problem Solving Interactives	Driving Tests (DT) Mental Minute (MM)	Printable Achievement Standards Assessment
GEOMETRY	Shapes and geometric reasoning	Sort, name, describe, visualise, draw and recognise 2D shapes ; Find examples of 2D shapes in the environment	2Gs1 2Gs4	52			DT Grade 1 Geometry 1, 2, 3, 6, 10	Grade 1 Geometry: Shape Tests 1, 2, 5, 6, 7
		Sort, name, describe, make and recognise 3D shapes; Find examples of 3D shapes in the environment	2Gs2 2Gs4	62, 99			DT Grade 1 Geometry 7, 8, 17-19	Grade 1 Geometry: Shape Tests 3, 4, 5, 6, 7
	Position and movement	Follow and give instructions involving position, direction and movement; Recognise whole, half and quarter turns, both clockwise and anti-clockwise	2Gp1 2Gp2	57, 78, 94			DT Grade 1 Geometry 4, 5, 11, 12, 14, 15, 16	Grade 1 Number and Algebra: Patterns Tests 2, 3, 5
MEASURE	Money	Recognise all coins and notes; Use money notation; Find totals and the coins and notes required to pay a given amount; work out change	2Mm1 2Mm2 2Mm3	64, 83, 92		83	DT Grade 1 Measurement 3, 5-7, 12	Grade 1 Number and Algebra: Fractions and Money Tests 3, 4, 5, 6, 7
	Length, mass and capacity	Estimate, measure and compare lengths, weights and capacities	2Ml1	73, 84, 89			DT Grade 1 Measurement 2, 4, 11, 13, 14, 17-19	Grade 1 Measurement: Length All tests
		Compare lengths, weights and capacities using the standard units: centimetre, metre, 100 g, kilogram, litre	2Ml2	104, 126, 143				
	Time	Know the units of time; Know the relationships between consecutive units of time	2Mt1 2Mt2	42, 70, 87, 109				
		Read the time to the half hour on digital and analogue clocks	2Mt3	70, 87		87	DT Grade 1 Measurement 1, 8-10, 15	Grade 1 Measurement: Time All tests
		Know and order the days of the week and the months of the year	2Mt5	42, 109				
HANDLING DATA	Organising, categorising and representing data	Answer a question by collecting and recording data in lists and tables, and representing it as block graphs and pictograms to show results	2Dh1	80, 97		80	DT Grade 1 Data 1-4, 6, 9, 10, 12-16	Grade 1 Statistics: Data All tests
PROBLEM SOLVING	Using techniques and skills in solving mathematical problems	Choose appropriate mental strategies to carry out calculations and explain how they worked out the answer	2Pt1			51, 53, 56, 65, 68, 71, 74, 77, 79, 83, 91, 93, 96		
		Explore number problems and puzzles	2Pt3			60, 67, 88		
		Make sense of simple word problems, decide what operations are needed to solve them and, with help, represent them	2Pt4			51, 53, 56, 65, 68, 71, 74, 77, 79, 83, 91, 93, 95, 96, 100		
		Check the answer to an addition by adding the numbers in a different order or by using a different strategy	2Pt6			77, 79		
		Identify simple relationships between numbers and shapes	2Pt9	52, 62, 69, 72, 88, 99		88, 91		





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STAGE 3



Content areas	Topics	Learning objectives	Codes	Mathseeds Lesson			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
NUMBER	Numbers and the number system	Recite numbers 100 to 200 and beyond; Read and write numbers to at least 1000	3Nn1 3Nn2	101, 105, 106		105	DT Grade 2 Number 1, 3, 8, 10, 12, 13, 18, 23, 24	Grade 2 Number and Algebra: Numbers to 1000 Tests 1, 3
		Count on and back in ones, tens and hundreds; And in steps of 2, 3, 4, 5	3Nn3 3Nn4	106, 117, 120, 133			DT Grade 2 Patterns and Fractions 1-4, 6-10, 13	Grade 2 Number and Algebra: Number Patterns All tests
		Understand what each digit represents in three-digit numbers and partition into hundreds, tens and units; Order two- and three-digit numbers	3Nn5 3Nn12	101, 105, 106		105, 128, 134	DT Grade 2 Number 2, 4-7, 11, 16, 19-22	Grade 2 Number and Algebra: Numbers to 1000 Tests 2, 5, 8
		Find 1, 10, 100 more/less than a number	3Nn6	101, 106, 133, 148			DT Grade 2 Number 9, 17	
		Round two-digit numbers to the nearest 10 and round three-digit numbers to the nearest 100	3Nn8	129, 194				
		Place a three-digit number on a number line	3Nn9 3Nn10	101, 105, 106				Grade 2 Number and Algebra: Numbers to 1000 Test 4
		Compare three-digit numbers, use < and > signs	3Nn11	122			DT Grade 2 Number 14, 15	Grade 2 Number and Algebra: Numbers to 1000 Tests 7, 8
		Understand and use fraction notation; Recognise equivalence between $\frac{1}{2}$, $\frac{2}{4}$, $\frac{4}{8}$ and $\frac{5}{10}$ using diagrams; Order fractions on a number line	3Nn15 3Nn16 3Nn18	132, 138, 160		132	DT Grade 2 Patterns and Fractions 5, 11, 12, 14-17	Grade 2 Number and Algebra: Fractions and Money Tests 1, 2, 3
		Recognise and order simple mixed fractions	3Nn17 3Nn18	160				
		Begin to relate finding fractions to division; Find halves, thirds, quarters and tenths of shapes and numbers	3Nn19 3Nn20	132, 138		132	DT Grade 2 Patterns and Fractions 5, 11, 12, 14-17	
	Calculation: Mental strategies	Know addition and subtraction facts for numbers to 20	3Nc1	118, 124, 125, 128, 130, 131, 134, 135, 137, 139, 142, 144, 146, 147, 148, 150		128, 134, 142	DT Grade 2 Operations 1, 2, 4, 5 MM Addition Sprints MM Subtraction Sprints	Grade 2 Number and Algebra: Addition and Subtraction Test 1
		Know multiplication/division facts for 2×, 3×, 5× and 10× tables; Begin to know 4× table	3Nc3 3Nc4	118, 124, 125, 128, 130, 131, 134, 137, 139, 142, 144, 146, 147, 148, 150			MM Multiplication Sprints MM Division Sprints	
	Calculation: Addition and subtraction	Add and subtract 10 and multiples of 10; Add 100 and multiples of 100; Find 20, 30, ... 90, 100, 200, 300 more/less than three-digit numbers	3Nc9 3Nc10 3Nc18	98, 120, 148, 195			DT Grade 2 Operations 7, 13, 27, 28 MM Addition Sprints MM Subtraction Sprints	
		Use the = sign to represent equality	3Nc11	76, 125, 163				
		Add several small numbers; Re-order an addition to help with the calculation	3Nc12 3Nc16	118, 124, 134, 137, 150		118, 150		Grade 2 Number and Algebra: Addition and Subtraction Test 4
		Add and subtract pairs of two-digit numbers; Re-order an addition to help with the calculation	3Nc14 3Nc16	110, 120, 124, 128, 134			DT Grade 2 Operations 14-17, 20, 23	Grade 2 Number and Algebra: Addition and Subtraction Tests 2, 3, 4, 5, 6
		Add/subtract single-digit numbers to/from three-digit numbers; Add three-digit and two-digit numbers using notes to support	3Nc15 3Nc17	128, 144		128, 134, 144, 146	DT Grade 2 Operations 18, 21, 24-26	Grade 2 Number and Algebra: Addition and Subtraction Tests 7, 8, 9
	Calculation: Multiplication and division	Understand the effect of multiplying two-digit numbers by 10	3Nc20	193				
		Multiply single-digit numbers and divide two-digit numbers by 2, 3, 4, 5, 6, 9 and 10	3Nc21	115, 118, 124, 130, 131, 134, 135, 136, 137, 139, 155, 158, 165, 168, 171, 176		113, 130, 136	DT Grade 2 Operations 6, 8-12, 19	
		Understand and apply the idea that multiplication is commutative; Understand the relationship between multiplication and division and write connected facts	3Nc25 3Nc26	181, 199				



STAGE 3 continued



Content areas	Topics	Learning objectives	Codes	Mathseeds Lesson			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
				Online Lesson, Printable Resources, & Problem Solving Tasks	End-of-lesson Quiz	Critical Thinking and Problem Solving Interactives	Driving Tests (DT) Mental Minute (MM)	Printable Achievement Standards Assessment
GEOMETRY	Shapes and geometric reasoning	Identify, describe and draw regular and irregular 2D shapes; Classify 2D shapes; Identify 2D shapes in the environment; Relate 2D shapes to drawings of them	3Gs1 3Gs2 3Gs6 3Gs7	119, 145			DT Grade 2 Geometry 4, 6, 7, 10	Grade 2 Geometry: Shape Tests 1, 2, 5
		Identify, describe and make 3D shapes; investigate which nets will make a cube; Classify 3D shapes; Identify 3D shapes in the environment; Relate 3D solids to drawings of them	3Gs3 3Gs4 3Gs6 3Gs7	99, 121		121, 140	DT Grade 2 Geometry 3, 5-7	Grade 2 Geometry: Shape Tests 3, 4, 5
		Draw and complete 2D shapes with reflective symmetry and draw reflections of shapes; Identify lines of symmetry in the environment	3Gs5 3Gs7	102, 152				
	Position and movement	Use the language of position, direction and movement, including clockwise and anti-clockwise	3Gp1	94, 102		102	DT Grade 2 Geometry 1, 9, 11, 13	
		Find and describe the position of a square on a grid of squares where the rows and columns are labelled	3Gp2	164			DT Grade 2 Geometry 2, 8	
MEASURE	Money	Consolidate using money notation; Use addition and subtraction facts with a total of 100 to find change	3Mm1 3Mm2	124, 125, 128, 131, 134, 139, 144, 146, 147, 148, 150			DT Grade 2 Measurement 12	Grade 2 Number and Algebra: Fractions and Money Tests 4, 5, 6, 7
	Length, mass and capacity	Choose and use appropriate units and equipment; Know the relationship between kilometres, metres and centimetres; Use a ruler to draw and measure lines to the nearest centimetre; Solve word problems	3MI1 3MI2 3MI4 3MI5	104, 126, 141, 143			DT Grade 2 Measurement 6, 9, 11, 13, 15, 19, 21-24	Grade 2 Measurement: Length All tests
		Choose and use appropriate units and equipment; Know the relationship between kilograms and grams; Solve word problems involving measures	3MI1 3MI2 3MI5	135, 172			DT Grade 2 Measurement 17, 18	
		Choose and use appropriate units and equipment; Know the relationship between litres and millilitres; Solve word problems involving measures	3MI1 3MI2 3MI5	154			DT Grade 2 Measurement 8	
	Time	Suggest and use suitable units to measure time and know the relationships between them	3Mt1	109			DT Grade 2 Measurement 3-5, 14, 16	
		Read the time on analogue clocks to the nearest 5 minutes and to the nearest minute on a digital clock	3Mt2	114, 123			DT Grade 2 Measurement 7, 10, 20	Grade 2 Measurement: Time Tests 1, 2, 4, 5
		Begin to calculate time intervals in hours and minutes	3Mt3	127				Grade 2 Measurement: Time Test 3
		Read a calendar and calculate intervals in weeks or days	3Mt4	109		109	DT Grade 2 Measurement 1, 2	Grade 2 Measurement: Time Test 7
HANDLING DATA	Organising, categorising and representing data	Answer a real-life question by collecting, organising and interpreting data; Use tally charts, frequency tables, pictograms (symbol representing one or two units) and bar charts (intervals labelled in ones or twos)	3Dh1 3Dh2	107, 143, 174, 187			DT Grade 2 Data 1, 4, 5, 7-14	Grade 2 Statistics: Data All tests
PROBLEM SOLVING	Using techniques and skills in solving mathematical problems	Choose appropriate mental strategies to carry out calculations	3Pi1	118, 124, 125, 128, 130, 131, 134, 135, 137, 139, 144, 146, 147, 148, 150		133		
		Begin to understand everyday systems of measurement in length, weight, capacity and time and use these to make measurements as appropriate	3Pi2	104, 109, 114, 123, 126, 127, 135, 141, 143, 154, 172		109		
		Make sense of and solve word problems, single and two-step and begin to represent them	3Pi3	118, 124, 130, 131, 134, 135, 137, 139, 147		113, 118, 128, 130, 134, 136, 139, 144, 146, 150		Grade 2 Number and Algebra: Addition and Subtraction Test 9 Grade 2 Number and Algebra: Equal Groups Test 5
		Recognise the relationships between 2D shapes	3Pi8			102		
		Identify differences and similarities between 3D shapes	3Pi9			121, 140		
	Using understanding and strategies in solving problems	Explain a choice of calculation strategy and show how the answer was worked out	3Ps2			109, 113, 118, 128, 130, 134, 136, 139, 142, 144, 146, 150		
		Explore and solve number problems and puzzles	3Ps3	101, 105, 106, 117, 120, 133		105, 124, 132, 133, 139		
		Use lists and tables to solve problems systematically	3Ps4	137		105, 121, 132, 133, 140, 142		
		Describe and continue patterns which count on or back in steps of 2, 3, 4, 5, 10, or 100	3Ps5	117, 120, 133		109, 113, 130, 132, 133		
		Identify simple relationships between numbers	3Ps6	117, 120, 133		105, 109, 132, 133, 142		
		Identify simple relationships between shapes	3Ps7			102, 121, 140		



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STAGE 4

Content areas	Topics	Learning objectives	Codes	Mathseeds Lesson			Additional Mathseeds Resources
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency
				Online Lesson, Printable Resources, & Problem Solving Tasks	End-of-lesson Quiz	Critical Thinking and Problem Solving Interactives	Mental Minute (MM)
NUMBER	Numbers and the number system	Read and write numbers up to 10 000	4Nn1	151, 156		153, 161, 194, 199	
		Count on and back in ones, tens, hundreds and thousands	4Nn2	151			
		Understand what each digit represents in a three- or four-digit number and partition into thousands, hundreds, tens and units	4Nn3	151, 156, 161		151, 156, 194	
		Find multiples of 10, 100, 1000 more/less than a number	4Nn6	156, 161			
		Multiply and divide three-digit numbers by 10; begin to multiply numbers by 100 and perform related divisions	4Nn7	193			
		Round three- and four-digit numbers to the nearest 10 or 100	4Nn9	173, 194			
		Compare pairs of three-digit or four-digit numbers, using the > and < signs	4Nn12	151, 161, 183			
		Recognise odd and even numbers; Make general statements about the sums and differences of odd and even numbers	4Nn15 4Nn16	166			
		Order and compare two or more fractions with the same denominator	4Nn17	160, 175, 197			
		Recognise the equivalence between: $\frac{1}{2}$, $\frac{4}{8}$, and $\frac{5}{10}$; $\frac{1}{4}$ and $\frac{2}{8}$; $\frac{1}{5}$ and $\frac{2}{10}$; Use equivalence to help order fractions	4Nn18 4Nn19	160, 180, 191, 197			
		Recognise mixed numbers and order on a number line	4Nn23	160, 191			
		Relate finding fractions to division; Find halves, quarters, thirds, fifths, eighths and tenths of shapes and numbers	4Nn24 4Nn25	160, 175, 180			
	Calculation: Mental strategies	Know multiplication for 2×, 3×, 4×, 5×, 6×, 9× and 10× tables and derive division facts	4Nc4	158, 165, 168, 171, 176, 181, 186, 190, 193, 196, 199		168, 176, 181, 186, 188, 196	MM Multiplication Sprints MM Division Sprints
		Recognise and begin to know multiples of 2, 3, 4, 5 and 10	4Nc5	158, 171, 176			
		Add three or four small numbers, finding pairs that equal 10 or 20; Add any pair of two-digit numbers	4Nc6 4Nc9	163, 173, 183, 188		154	MM Addition Sprints
		Subtract any pair of two-digit numbers	4Nc10	163, 173, 178, 183, 188		154, 178, 183, 195	MM Subtraction Sprints
		Multiply any pair of single-digit numbers together; Use knowledge of commutativity	4Nc13 4Nc14	155, 158, 168, 171, 176, 181, 186, 188, 190			MM Multiplication Sprints MM Division Sprints
	Calculation: Addition and subtraction	Add pairs of three-digit numbers	4Nc17	170, 183			
		Subtract a two-digit number from a three-digit number; Subtract pairs of three-digit numbers	4Nc18 4Nc19	178, 183		178, 183, 195	
	Calculation: Multiplication and division	Multiply a two-digit number by a single-digit number	4Nc22	171			
		Understand that multiplication and division are the inverse function of each other	4Nc25	181, 190, 199			





STAGE 4 continued



Content areas	Topics	Learning objectives	Codes	Mathseeds Lesson			Additional Mathseeds Resources
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency
				Online Lesson, Printable Resources, & Problem Solving Tasks	End-of-lesson Quiz	Critical Thinking and Problem Solving Interactives	Mental Minute (MM)
GEOMETRY	Shapes and geometric reasoning	Identify, describe, visualise, draw and make a range of 2D and 3D shapes; Find examples in the environment and art	4Gs1 4Gs5	169, 184			
		Classify polygons (including quadrilaterals)	4Gs2	177, 184			
		Identify and sketch lines of symmetry in 2D shapes and patterns; Find examples of symmetry in the environment and in art	4Gs3 4Gs5	152			
		Visualise 3D objects from 2D nets and drawings and make nets of common solids	4Gs4	169			
	Position and movement	Describe and identify the position of a square on a grid of squares where rows and columns are numbered and/or lettered	4Gp1	164			
MEASURE	Length, mass and capacity	Choose and use standard metric units and their abbreviations (km, m, cm, mm); Know and use the relationships between familiar units of length; know the meaning of 'kilo', 'centi' and 'milli'; Interpret intervals/divisions on scales and record readings accurately	4Ml1 4Ml2 4Ml4	182, 198			
		Choose and use standard metric units and their abbreviations (kg, g); Know and use the relationships between familiar units of mass; know the meaning of 'kilo'; Interpret intervals/divisions on partially numbered scales and record readings accurately	4Ml1 4Ml2 4Ml4	172			
		Choose and use standard metric units and their abbreviations (l and ml); Know and use the relationships between familiar units of capacity; know the meaning of 'milli'; Interpret intervals/divisions on partially numbered scales and record readings accurately	4Ml1 4Ml2 4Ml4	154		154	
	Time	Read and tell the time to nearest minute on 12-hour digital and analogue clocks	4Mt1	162, 179, 185			
		Use a.m., p.m. and 12-hour digital clock notation	4Mt2	162, 179, 189			
		Read simple timetables and use a calendar	4Mt3	189			
		Choose units of time to measure time intervals	4Mt4	179			
	Area and perimeter	Draw rectangles, and measure and calculate their perimeters	4Ma1	192			
		Understand that area is measured in square units, e.g. cm ² ; Find the area of rectilinear shapes drawn on a square grid by counting squares	4Ma2 4Ma3	157, 200			
	Organising, categorising and representing data	Answer a question by identifying what data to collect, organising, presenting and interpreting data in tables, diagrams, tally charts, frequency tables, pictograms and bar charts	4Dh1	167, 174, 187, 198			
PROBLEM SOLVING	Using techniques and skills in solving mathematical problems	Choose appropriate mental or written strategies to carry out calculations involving addition or subtraction	4Pt1	153, 159, 183, 188, 195		154, 159, 163, 182, 188, 193, 196	
		Understand everyday systems of measurement in length, weight, capacity and time and use these to solve simple problems as appropriate	4Pt2	154, 172, 198		154	
		Check subtraction by adding the answer to the smaller number in the original calculation	4Pt4	183			
		Check the result of a division using multiplication	4Pt6	190			
		Recognise relationships between 2D shapes and identify the differences and similarities between 3D shapes	4Pt7	169, 184			
		Estimate and approximate when calculating	4Pt8	194			
	Using understanding and strategies in solving problems	Explore and solve number problems and puzzles	4Ps4	153		153, 161, 194, 199	
		Describe and continue number sequences, identifying the relationship between each number	4Ps6	153		153, 168, 187, 195	
		Identify simple relationships between shapes	4Ps7	169			