

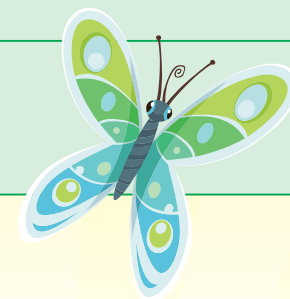


Mathseeds Lessons and Mathematics Guidance: Key Stages 1 and 2



YEAR 1

Strand	Ready-to-progress criteria	Code	Mathseeds Lesson #			Additional Mathseeds Resources	
			Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Number and Place Value	Count within 100, forwards and backwards, starting with any number	1NPV-1	1, 2, 3, 5, 7, 10, 11, 12, 14, 16, 17, 18, 19, 20, 21, 25, 28, 33, 41, 43, 45, 46, 48, 50, 56, 60, 67, 75, 81, 86	End-of-lesson Quiz	Critical Thinking and Problem Solving Interactives	Driving Tests (DT) Mental Minute (MM)	Printable Achievement Standards Assessment
	Reason about the location of numbers to 20 within the linear number system, including comparing using $<$, $>$ and $=$.	1NPV-2	22, 25, 28, 122			DT Kindergarten Number 1-7, 10, 13-15, 17-19, 21, 22 DT Year 1 Number 2, 5, 8, 11, 12	Kindergarten Number Test 1, 2 Year 1 Number and Algebra: Whole Numbers Test 1-3, 6
Number Facts	Develop fluency in addition and subtraction facts within 10.	1NF-1	24, 30, 31, 32, 34, 36, 40, 47, 49		30, 31, 34, 36, 40, 47	DT Kindergarten Operations 5, 12, 24, 25 MM Addition Sprints MM Subtraction Sprints	Kindergarten Operations Test 1-3
	Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.	1NF-2	74, 77, 79, 90, 108		41, 77, 79, 117	DT Year 1 Patterns and Fractions 7-9 DT Year 2 Patterns and Fractions 1-4, 7-10, 13 DT Year 2 Operations 3	Kindergarten Number Test 5 Year 1 Number and Algebra: Whole Numbers Test 9 Year 1 Number and Algebra: Patterns Test 1-7 Year 2 Number and Algebra: Number Patterns Test 1-8
Addition and Subtraction	Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	1AS-1					Kindergarten Number Test 4
	Read, write and interpret equations containing addition, subtraction and equals symbols, and relate additive expressions and equations to real-life contexts.	1AS-2	24, 30, 31, 32, 34, 36, 40, 47, 49		43, 46	DT Kindergarten Operations 1-4, 6-11, 13-20, 22, 23	Kindergarten Operations Test 4 Year 1 Number and Algebra: Operations Test 3
Geometry	Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.	1G-1	4, 6, 9, 15, 23, 35, 44, 119			DT Kindergarten Geometry 1-8, 15-23	Kindergarten Geometry Test 1-3 Year 1 Geometry: Shape Test 1, 3, 5 Year 2 Geometry: Shape and Movement Test 1, 3
	Compose 2D and 3D shapes from smaller shapes to match an example; including manipulating shapes to place them in particular orientations.	1G-2	69		6, 15, 119	DT Kindergarten Geometry 12 DT Year 1 Geometry 9, 13	Kindergarten Geometry Test 4 Year 1 Geometry: Shape Test 6



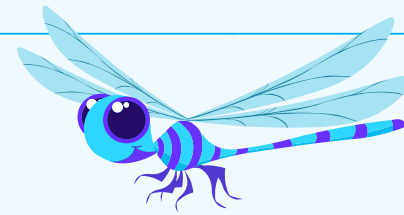


Mathseeds Lessons and Mathematics Guidance: Key Stages 1 and 2



YEAR 2

			Mathseeds Lesson #			Additional Mathseeds Resources	
			Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Strand	Ready-to-progress criteria	Code	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 and Place Value	Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.	2NPV-1	41, 43, 45, 46, 48, 60, 67, 75, 81, 86, 88		67, 88	DT Kindergarten Number 11, 12 DT Year 1 Number 9, 10	Year 1 Number and Algebra: Place Value Test 1-4 Year 2 Number and Algebra: Numbers to 1000 Test 1
	Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.	2NPV-2	60, 67, 75, 81, 86		56, 60, 75, 81	DT Year 1 Number 3, 4, 6	
Number Facts	Secure fluency in addition and subtraction facts within 10, through continued practice.	2NF-1	53, 58, 93		53, 93	MM Addition Sprints MM Subtraction Sprints	
Addition and Subtraction	Add and subtract across 10.	2AS-1	51, 65, 91, 100, 103		51, 91	DT Year 1 Operations 1-6, 10-12, 16	Year 1 Number and Algebra: Operations Test 1, 2
	Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?"	2AS-2	64, 68, 76, 83, 85, 92		65, 68, 76, 83, 92, 100, 104	DT Year 1 Operations 7-9 DT Year 2 Operations 1, 2, 4, 5, 14, 15	Year 1 Number and Algebra: Operations Test 4, 5
	Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.	2AS-3	95, 96, 125		95, 96, 125	DT Year 1 Operations 13-15, 17-20 DT Year 2 Operations 7, 13	Year 1 Number and Algebra: Operations Test 6
	Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.	2AS-4	98, 110, 118		110, 118	DT Year 2 Measurement 22, 24	Year 1 Number and Algebra: Place Value Test 5, 6 Year 1 Number and Algebra: Fractions and Money Test 5, 6, 8 Year 2 Number and Algebra: Fractions and Money Test 6-8 Year 2 Number and Algebra: Addition and Subtraction Test 3, 6, 7
Multiplication and Division	Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.	2MD-1	72, 113, 115		113, 115	DT Year 2 Operations 8-12, 19	Year 2 Number and Algebra: Equal Groups Test 3-5
	Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).	2MD-2	71, 74		71, 74	DT Kindergarten Operations 21 DT Year 2 Operations 6	Year 2 Number and Algebra: Equal Groups Test 1, 2
Geometry	Use precise language to describe the properties of 2D and 3D shapes by reasoning about similarities and differences in properties	2G-1	52, 62, 121, 169		52, 62, 121, 140	DT Year 1 Geometry 1-3, 6-8, 10, 17-19 DT Year 2 Geometry 3-7, 10	Year 1 Geometry: Shape Test 2, 4 Year 2 Geometry: Shape and Movement Test 2, 4, 5

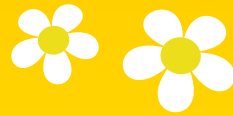




Mathseeds Lessons and Mathematics Guidance: Key Stages 1 and 2



YEAR 3



Strand	Ready-to-progress criteria	Code	Mathseeds Lesson #			Additional Mathseeds Resources	
			Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Number and Place Value	Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.	3NPV-1	101, 105, 106	End-of-lesson Quiz	Critical Thinking and Problem Solving Interactives	DT Year 1 Number 16, 17, 19-24 DT Year 2 Number 1-24	Year 2 Number and Algebra: Numbers to 1000 Test 2-7
	Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.	3NPV-2					
	Reason about the location of any three-digit number system, including identifying the previous and next multiple of 100 and 10.	3NPV-3					
Number Facts	Secure fluency in addition and subtraction facts that bridge 10, through continued practice.	3NF-1	103, 142, 148		120, 142, 148, 163	MM Addition Sprints MM Subtraction Sprints	Year 2 Number and Algebra: Addition and Subtraction Test 1, 2, 4, 5
	Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.	3NF-2	158, 171, 176			MM Multiplication Sprints MM Division Sprints	
	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).	3NF-3	117, 193, 195		195		
Addition and Subtraction	Calculate complements to 100.	3AS-1	120, 124, 128, 131, 134, 139, 141, 144, 146, 147, 150, 159, 163, 165, 166, 170, 173, 178			DT Year 2 Operations 20	
	Add and subtract up to three-digit numbers using columnar methods.	3AS-2					
	Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.	3AS-3			124, 128, 131, 134, 139, 141, 144, 146, 147, 150, 159, 170, 173, 178, 183	DT Year 2 Operations 16-18, 21-28	Year 2 Number and Algebra: Addition and Subtraction Test 8
Multiplication and Division	Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.	3MD-1	111, 113, 115, 130, 136, 165, 168, 196		136, 168, 196		
Fractions	Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.	3F-1	61, 66, 132		132	DT Year 1 Patterns and Fractions 3, 5, 6, 11, 13 DT Year 2 Patterns and Fractions 5, 11, 12, 14-16	Year 1 Number and Algebra: Fractions and Money Test 1-3, 7 Year 2 Number and Algebra: Fractions and Money Test 1, 3
	Find unit fractions of quantities using known division facts (multiplication tables fluency).	3F-2	138, 175			DT Year 1 Patterns and Fractions 14	Year 2 Number and Algebra: Fractions and Money Test 2
	Reason about the location of any fraction within 1 in the linear number system.	3F-3	160, 180		180	DT Year 2 Patterns and Fractions 17	Year 2 Number and Algebra: Fractions and Money Test 4
	Add and subtract fractions with the same denominator, within 1.	3F-4	191				
Geometry	Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.	3G-1	94, 102, 177		102	DT Year 2 Geometry 1, 9, 11	Year 1 Geometry: Shape Test 7 Year 2 Geometry: Shape and Movement Test 6
	Draw polygons by joining marked points, and identify parallel and perpendicular sides.	3G-2	145, 184		145		





Mathseeds Lessons and Mathematics Guidance: Key Stages 1 and 2



YEAR 4

YEAR 4			Mathseeds Lesson #			Additional Mathseeds Resources	
Strand	Ready-to-progress criteria	Code	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 and Place Value	Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.	4NPV-1	129, 151, 156, 194		151, 156		
	Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.	4NPV-3					
	Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.	4NPV-2	161	161			
Number Facts	Recall multiplication and division facts up to 12 × 12, and recognise products in multiplication tables as multiples of the corresponding number.	4NF-1	155, 158, 171, 176, 199			MM Multiplication Sprints MM Division Sprints	
	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100).	4NF-3	195				
Multiplication and Division	Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.	4MD-1	193		172, 193		
	Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication	4MD-2	115, 130, 136, 158, 165, 176, 181, 186, 188, 190, 196		130, 176, 181, 186, 188, 196, 199		
	Understand and apply the distributive property of multiplication.	4MD-3					
Fractions	Reason about the location of mixed numbers in the linear number system.	4F-1	191		191		
	Convert mixed numbers to improper fractions and vice versa.	4F-2	197		197		
	Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.	4F-3			154		
Geometry	Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.	4G-2	192				
	Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.	4G-3	152				

