Curriculum for Wales: Mathematics and Numeracy

Progression Step 1 - K

		Mathseeds Lesson #			Additional Mathseeds Resources	
		Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Statements of what matters	**Descriptions of learning**	**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**
The number system is used to represent and compare relationships between numbers and quantities	I have experienced and explored numbers, including cardinal, ordinal and nominal numbers, in number-rich indoor and outdoor environments.	1, 2, 3, 5, 7, 10, 11, 12, 14, 16, 17, 18, 19, 20, 21, 25, 28, 33, 50, 63		19	**DT** Kindergarten Number 1-10, 24, 25	**Kindergarten Number** Test 6
	I can notice, recognise and write numbers in a range of media, through a multisensory approach, from 0 to 10 and beyond.					
	I can use mathematical language to describe quantities, and to make estimates and comparisons such as 'more than', 'less than' and 'equal to'.	22		41	**DT** Kindergarten Number 8, 20	**Kindergarten Number** Test 3
	I have experienced the counting sequence of numbers in different ways, reciting forwards and backwards, and starting at different points.	1, 2, 3, 5, 7, 10, 11, 12, 14, 16, 17, 18, 19, 20, 21, 22, 25, 28, 41, 43, 45, 46		12, 19, 41, 43, 46	**DT** Kindergarten Number 1-25	**Kindergarten Number** Tests 1, 2, 4
	I can use my experience of the counting sequence of numbers and of one-to-one correspondence to count sets reliably. I can count objects that I can touch, and ones that I cannot.					
	I have explored forming a quantity in different ways, using combinations of objects or quantities.	24, 25, 30, 31, 32, 34, 36, 40, 47, 49, 50		30, 31, 34, 36, 40, 47	**DT** Kindergarten Operations 1-25 **MM** Addition Sprints **MM** Subtraction Sprints	**Kindergarten Operations** Tests 1-4
	I can communicate how sets change when objects are added to and taken away from them.					
	I have experienced grouping and sharing with objects and quantities, and I can group or share small quantities into equal-sized groups.				**DT** Kindergarten Operations 8, 20, 21	
	I have used money, and the language of money, in play and real-life situations and I can understand that I need to exchange money for items.					**Kindergarten Number** Test 5
Algebra uses symbol systems to express the structure of mathematical relationships	I am beginning to recognise, copy, extend and generalise patterns and sequences around me.	27, 37		6, 8, 15, 23, 27, 37	**DT** Kindergarten Patterns 1-9	**Kindergarten Number** Test 6
	I am beginning to demonstrate, using objects, an understanding of the concepts of 'equal' and 'not equal'.					
Geometry focuses on relationships involving shapes, space and position, and measurement focuses on quantifying phenomena in the physical world	I can understand and apply the language of time in relation to my daily life.	39, 42			**DT** Kindergarten Measurement 1, 4, 13, 14, 17-19	**Kindergarten Measurement** Tests 6, 7
	I have used a variety of objects to measure. I am beginning to understand the need to repeat the same physical unit without any gaps when measuring.	13, 26, 29, 38, 55, 73		38	**DT** Kindergarten Measurement 2, 3, 5-12, 15, 16, 20	**Kindergarten Measurement** Tests 1-5
	I can make estimates and comparisons with measures, such as 'shorter than', 'heavier than'.					
	I have explored, compared, and used the general language of shapes through investigative play.	4, 6, 8, 9, 15, 23, 35, 44			**DT** Kindergarten Geometry 1-8, 12, 15-23	**Kindergarten Geometry** Tests 1-4
	I have explored movements and directions and I am beginning to use mathematical language to describe position.				**DT** Kindergarten Geometry 9-11, 13, 14	**Kindergarten Geometry** Tests 5, 6
Statistics represent data, probability models chance, and both support informed inferences and decisions	I can investigate, collect and record data found in my environment.				**DT** Kindergarten Data 1-10	**Kindergarten Data** Tests 1, 2
	I can group sets into categories and I am beginning to communicate the rule(s) I have used.					
	I am beginning to represent and interpret data, using a range of methods.					

Curriculum for Wales: Mathematics and Numeracy

Progression Step 2 - Y1

		Mathseeds Lesson #			Additional Mathseeds Resources	
		Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Statements of what matters	**Descriptions of learning**	**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**
The number system is used to represent and compare relationships between numbers and quantities	I can read, write and interpret larger numbers, up to at least 1000, using digits and words.	41, 43, 45, 46, 48, 56, 60, 63, 67, 75, 81, 86		41, 43, 46, 60, 81	**DT** Grade 1 Number 1-24	**Year 1 Number and Algebra: Whole Numbers** Tests 2-9 **Year 1 Number and Algebra: Place Value** Tests 1-5
	I can understand that the value of a number can be determined by the position of the digits.					
	I have engaged in practical tasks to estimate and round numbers to the nearest 10 and 100.			67		
	I can order and sequence numbers, including odd and even numbers, and I can count on and back in step sizes of any whole number and simple unit fractions.	56, 60, 61, 66, 67, 75, 81, 86		56, 75	**DT** Grade 1 Number 1, 3, 4, 6, 11, 13-16, 20, 21, 23 **DT** Grade 1 Patterns and Fractions 3, 5, 6, 11	**Year 1 Number and Algebra: Whole Numbers** Tests 1, 3-5, 7-9 **Year 1 Number and Algebra: Fractions and Money** Tests 1-3, 7
	I have explored additive relationships, using a range of representations. I can add and subtract whole numbers, using a variety of written and mental methods.	51, 53, 58, 65, 68, 72, 85, 88, 91, 95, 96, 98, 100		51, 53, 65, 68, 76, 85, 88, 91, 95, 96, 98, 100	**DT** Grade 1 Operations 1-20 **MM** Addition Sprints **MM** Subtraction Sprints	**Year 1 Number and Algebra: Operations** Tests 1-6 **Year 1 Number and Algebra: Place Value** Test 6
	I can use my understanding of multiplication to recall some multiplication facts and tables starting with tables 2, 3, 4, 5 and 10 and I can use the term 'multiples'.	72		72	**MM** Multiplication Sprints **MM** Division Sprints	
	I have explored and can use my understanding of multiplicative relationships to multiply and divide whole numbers, using a range of representations, including sharing, grouping and arrays.	71, 74		71, 74		
	I can understand the equivalence and value of coins and notes to make appropriate transactions in role play.	64, 83, 92		83	**DT** Grade 1 Measurement 3, 5-7, 12	**Year 1 Number and Algebra: Fractions and Money** Tests 4-8
Algebra uses symbol systems to express the structure of mathematical relationships	I have explored patterns of numbers and shape. I can recognise, copy and generate sequences of numbers and visual patterns.	77, 79, 90		63, 77, 79	**DT** Grade 1 Patterns and Fractions 1, 2, 4, 7-10, 12	**Year 1 Number and Algebra: Patterns** Tests 1-7
	I can use the equals sign to indicate that both sides of a number sentence have the same value and I can use inequality signs when comparing quantities to indicate 'more than' and 'less than'. I can find missing numbers when number bonds and multiplication facts are not complete.	51, 76			**DT** Grade 1 Number 7, 18 **DT** Grade 1 Operations 8, 10-12, 16	**Year 1 Number and Algebra: Operations** Test 6
	I have explored commutativity with addition and multiplication and I can recognise when two different numerical expressions describe the same situation but are written in different ways.	93		93		
Geometry focuses on relationships involving shapes, space and position, and measurement focuses on quantifying phenomena in the physical world	I am beginning to tell the time using a variety of devices. I have explored and used different ways of showing the passing of time, including calendars, timelines, simple timetables and schedules.	54, 70, 87		87	**DT** Grade 1 Measurement 1, 8-10, 15, 16	**Year 1 Measurement: Time** Tests 1-6
	I have explored measuring, using counting, measuring equipment and calculating, and I can choose the most appropriate method to measure.	59, 84, 89		59	**DT** Grade 1 Measurement 2, 4, 11, 13, 14, 17-19	**Year 1 Measurement: Length and Capacity** Tests 1-7
	I can estimate and measure, using non-standard units, before progressing onto standard units.					
	I have explored two-dimensional and three-dimensional shapes and their properties in a range of contexts.	52, 62, 69, 99		52, 62, 69	**DT** Grade 1 Geometry 1-3, 6-10, 13, 17-19	**Year 1 Geometry: Shape** Tests 1-6
	I can describe and quantify the position of objects in relation to other objects.	57, 78, 94		57, 78, 94	**DT** Grade 1 Geometry 4, 5, 11, 12, 14-16	**Year 1 Geometry: Shape** Tests 7, 8
	I have explored the concept of rotation and I am beginning to use simple fractions of a complete rotation to describe turns.	94				
Statistics represent data, probability models chance, and both support informed inferences and decisions	I can collect and organise data to ask and answer questions in relevant situations. I can sort and classify using more than one criterion.	80, 97		80	**DT** Grade 1 Data 1-4, 9, 10, 12-16	**Year 1 Statistics: Data** Tests 1-5
	I am beginning to record and represent data in a variety of ways, including the use of tally charts, frequency tables and block graphs, when appropriate axes and scales are provided.					
	I am beginning to interpret and analyse simple graphs, charts and data. I can explain my findings and I am beginning to evaluate how well my method worked.					

Curriculum for Wales: Mathematics and Numeracy

Progression Step 2 - Y2

		Mathseeds Lesson #			Additional Mathseeds Resources	
		Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Statements of what matters	**Descriptions of learning**	**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**
The number system is used to represent and compare relationships between numbers and quantities	I can read, write and interpret larger numbers, up to at least 1000, using digits and words.	101, 105, 106		105, 106	**DT** Year 2 Number 1-24	**Year 2 Number and Algebra: Numbers to 1000** Tests 1-7
	I can understand that the value of a number can be determined by the position of the digits.					
	I have engaged in practical tasks to estimate and round numbers to the nearest 10 and 100.	129				
	I am beginning to estimate and check the accuracy of my answers, using inverse operations when appropriate.					
	I can order and sequence numbers, including odd and even numbers, and I can count on and back in step sizes of any whole number and simple unit fractions.	101, 106, 108, 132		108, 132	**DT** Year 2 Number 2, 3, 10, 12,13 **DT** Year 2 Operations 3 **DT** Year 2 Patterns and Fractions 5, 11, 12, 14-17	**Year 2 Number and Algebra: Fractions and Money** Tests 1-4
	I have explored additive relationships, using a range of representations. I can add and subtract whole numbers, using a variety of written and mental methods.	103, 110, 118, 120, 124, 128, 131, 134, 139, 140, 141, 144, 146, 147, 148, 150		110, 118, 120, 124, 128, 131, 134, 139, 141, 144, 146, 148, 150	**DT** Year 2 Operations 1-5, 7-10, 13-18, 20-28 **MM** Addition Sprints **MM** Subtraction Sprints	**Year 2 Number and Algebra: Addition and Subtraction** Tests 1-8
	I can use my understanding of multiplication to recall some multiplication facts and tables starting with tables 2, 3, 4, 5 and 10 and I can use the term 'multiples'.	115			**MM** Multiplication Sprints **MM** Division Sprints	**Year 2 Number and Algebra: Equal Groups** Tests 1-5
	I have explored and can use my understanding of multiplicative relationships to multiply and divide whole numbers, using a range of representations, including sharing, grouping and arrays.	111, 113, 115, 130, 136, 138		113, 115, 130, 136	**DT** Year 2 Operations 6, 8-12, 19 **MM** Multiplication Sprints **MM** Division Sprints	
	I can understand the equivalence and value of coins and notes to make appropriate transactions in role play.	125, 147		125, 147	**DT** Year 2 Measurement 12	**Year 2 Number and Algebra: Fractions and Money** Tests 5-8
Algebra uses symbol systems to express the structure of mathematical relationships	I have explored patterns of numbers and shape. I can recognise, copy and generate sequences of numbers and visual patterns.	102, 117, 133, 137, 140		101, 102, 117, 133, 137	**DT** Year 2 Geometry 12 **DT** Year 2 Patterns and Fractions 1-4, 6, 10, 13	**Year 2 Number and Algebra: Number Patterns** Tests 1-8 **Year 2 Geometry: Shape and Movement** Tests 6, 7
	I can use the equals sign to indicate that both sides of a number sentence have the same value and I can use inequality signs when comparing quantities to indicate 'more than' and 'less than'. I can find missing numbers when number bonds and multiplication facts are not complete.	115, 122, 131, 142		142	**DT** Year 2 Number 14, 15 **DT** Year 2 Operations 20, 26	**Year 2 Number and Algebra: Addition and Subtraction** Test 4 **Year 2 Number and Algebra: Numbers to 1000** Test 6
Geometry focuses on relationships involving shapes, space and position, and measurement focuses on quantifying phenomena in the physical world	I am beginning to tell the time using a variety of devices. I have explored and used different ways of showing the passing of time, including calendars, timelines, simple timetables and schedules.	109, 114, 123, 127		109	**DT** Year 2 Measurement 1-5, 7, 10, 14, 16, 20	**Year 2 Measurement: Time** Tests 1-5
	I have explored measuring, using counting, measuring equipment and calculating, and I can choose the most appropriate method to measure.	104, 112, 116, 126, 135, 140, 143, 149		104, 135, 141, 149	**DT** Year 2 Measurement 6, 8, 9, 11, 13, 15, 17-19, 21-24	**Year 2 Measurement: Informal Units** Tests 1-8
	I can estimate and measure, using non-standard units, before progressing onto standard units.					
	I have explored two-dimensional and three-dimensional shapes and their properties in a range of contexts.	119, 121, 140, 145		119, 121, 140, 145	**DT** Year 2 Geometry 3-7, 10	**Year 2 Geometry: Shape and Movement** Tests 1-5
	I can describe and quantify the position of objects in relation to other objects.				**DT** Year 2 Geometry 1, 2, 8, 9, 11, 13	**Year 2 Geometry: Shape and Movement** Test 8
	I have explored the concept of rotation and I am beginning to use simple fractions of a complete rotation to describe turns.	102		102		
Statistics represent data, probability models chance, and both support informed inferences and decisions	I can collect and organise data to ask and answer questions in relevant situations. I can sort and classify using more than one criterion.	140, 143		143	**DT** Year 2 Data and Chance 1, 4, 5, 7-14	**Year 2 Statistics: Data** Tests 1-6
	I am beginning to record and represent data in a variety of ways, including the use of tally charts, frequency tables and block graphs, when appropriate axes and scales are provided.					
	I am beginning to interpret and analyse simple graphs, charts and data. I can explain my findings and I am beginning to evaluate how well my method worked.					

Curriculum for Wales: Mathematics and Numeracy

Progression Step 3 - Y3

		Mathseeds Lesson #			Additional Mathseeds Resources	
		Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Statements of what matters	**Descriptions of learning**	**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**
The number system is used to represent and compare relationships between numbers and quantities	I can use a range of representations to develop and secure my understanding that the value of a digit is related to its position. I can read, record and interpret numbers, using figures and words up to at least one million.	151, 156, 161, 166		151, 156, 161		
	I can use a range of representations to extend my understanding of the number system to include negative values, decimals and fractions. I can accurately place integers, decimals and fractional quantities on a number line. I can apply my understanding of number value to round and approximate appropriately.	151, 156, 160, 175, 180, 191, 194, 197		161, 180, 194, 197		
	I can verify calculations and statements about number by inverse reasoning and approximation methods.	163, 199				
	I can use the four arithmetic operations confidently, efficiently and accurately with integers and decimals, and I can combine these using distributive, associative and commutative laws where appropriate.	155, 158, 163, 165, 166, 168, 170, 171, 173, 176, 178, 181, 183, 186, 188, 190, 193, 195, 196, 199		168, 170, 173, 176, 178, 183, 186, 188, 191, 193, 196		
	I have extended my understanding of multiplicative reasoning to include the concept and application of ratio, proportion and scale.			175		
	I can fluently recall multiplication facts up to at least 10 x 10 and use these to derive related facts.	155, 158, 165, 171, 176, 181, 190, 199		181, 199		
	I can demonstrate an understanding of income and expenditure, and I can apply calculations to explore profit and loss.	159		159, 188		
Algebra uses symbol systems to express the structure of mathematical relationships	I can explore and create patterns of numbers and shapes. I can explain numerical sequences and spatial patterns in words and by generalising them.	153, 195		195		
	I can use commutativity, distributivity and associativity to explore equality and inequality of expressions.	158, 163, 171, 176		161		
	I can model problems, using expressions and equations involving symbols or words to represent unknown values, adopting the conventions of algebra. I can use inverse operations to find unknown values in simple equations.	165, 171				
Geometry focuses on relationships involving shapes, space and position, and measurement focuses on quantifying phenomena in the physical world	I can read analogue and digital clocks accurately and I can make interpretations and perform calculations involving time.	162, 179, 185, 189		179, 185, 189		
	I can estimate and measure length, capacity, mass, temperature and time, using appropriate standard units.	154, 172, 182, 198		154, 172, 182		
	I can convert between standard units, including applying my understanding of place value to convert between metric units.	182				
	I can explore and consolidate my understanding of the properties of two-dimensional shapes to include the number of sides and symmetry.	152, 184				
	I can explore vertices, edges and faces of three-dimensional shapes and I can use these characteristics to describe a three-dimensional shape.	169				
	I can relate a three-dimensional shape to its two-dimensional nets.					
	I can use efficient methods for finding the perimeter and area of two-dimensional shapes, understanding how basic formulae are derived.	157, 192, 200		200		
	I have developed an understanding of the ways in which co-ordinates are used to solve problems involving position, length and shape.	164				
	I can demonstrate my understanding of angle as a measure of rotation and I can recognise, name and describe types of angles.	177				
Statistics represent data, probability models chance, and both support informed inferences and decisions	I can collect different types of data to answer a variety of questions that have been posed, demonstrating an understanding of the importance of collecting relevant data.	174, 187, 198		187		
	I can represent information by creating a variety of appropriate charts of increasing complexity, including tally charts, frequency tables, bar graphs and line graphs.					
	I can use different scales to extract and interpret information from a range of diagrams, tables and graphs, including pie charts with simple fractions and proportions. I can recognise any trends that are seen.					
	I can find and use the mean of a simple set of data to explain how the statistics do, or do not, support an argument. I can recognise how anomalies affect the mean.					
	I can explore outcomes and chance, using appropriate language, and I am beginning to use numerical values to represent probability.	82, 107, 167		82