

Mathematics Assessment – EYFS		Transition Notes
Numerical Patterns ELG	Number ELG	
Children at the expected level of development will: <ul style="list-style-type: none"> • Verbally count beyond 20, recognising the pattern of the counting system; • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. 	Children at the expected level of development will: <ul style="list-style-type: none"> • Have a deep understanding of number to 10, including the composition of each number; • Subitise (recognise quantities without counting) up to 5; • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. 	
Previous Experience	EYFS	
Numerical patterns		
See non-statutory Development Matters Framework 3-4 guidance Development Matters - Non-statutory curriculum guidance for the early years foundation stage (publishing.service.gov.uk)	Begin to develop a sense of the number system by verbally counting forward to and beyond 20, pausing at each multiple of 10.	
	Play games that involve moving along a numbered track, and understand that larger numbers are further along the track.	
Number Facts		
	Begin to experience partitioning and combining numbers within 10.	
	Distribute items fairly, for example, put 3 marbles in each bag. Recognise when items are distributed unfairly.	
Calculation		
	Understand the cardinal value of number words, for example understanding that ‘four’ relates to 4 objects. Subitise for up to 5 items. Automatically show a given number using fingers.	
	Devise and record number stories, using pictures, numbers and symbols (such as arrows).	

Mathematics Assessment – Year 1 Assessment Grids based on Ready-to-Progress Criteria (DfE June 2020)		Transition Notes
Previous Experience	Year 1	
Number and Place Value		
Begin to develop a sense of the number system by verbally counting forward to and beyond 20, pausing at each multiple of 10.	1NPV–1 Count within 100, forwards and backwards, starting with any number.	
Play games that involve moving along a numbered track, and understand that larger numbers are further along the track.	1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using \leftrightarrow and $=$	
Number Facts		
Begin to experience partitioning and combining numbers within 10.	1NF–1 Develop fluency in addition and subtraction facts within 10.	
Distribute items fairly, for example, put 3 marbles in each bag. Recognise when items are distributed unfairly.	1NF–2 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.	
Calculation		
Understand the cardinal value of number words, for example understanding that ‘four’ relates to 4 objects. Subitise for up to 5 items. Automatically show a given number using fingers.	1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	
Devise and record number stories, using pictures, numbers and symbols (such as arrows).	1AS–2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.	
Geometry		
See, explore and discuss models of common 2D and 3D shapes with varied dimensions and presented in different orientations (for example, triangles not always presented on their base).	1G–1 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.	
Select, rotate and manipulate shapes for a particular purpose, for example: <ul style="list-style-type: none"> rotating a cylinder so it can be used to build a tower rotating a puzzle piece to fit in its place 	1G–2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.	

Mathematics Assessment – Year 2 Assessment Grids based on Ready-to-Progress Criteria (DfE June 2020)		Transition Notes
Year 1	Year 2	
Number and Place Value		
1NPV–1 Count within 100, forwards and backwards, starting with any number.	2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.	
1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =	2NPV–2 Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.	
Number Facts		
1NF–1 Develop fluency in addition and subtraction facts within 10.	2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice.	
1NF–2 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.		
Calculation		
1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	2AS–1 Add and subtract across 10, for example: 8 + 5 = 13 13 – 5 = 8	
	2AS–2 Recognise the subtraction structure of ‘difference’ and answer questions of the form, “How many more...?”.	
	2AS–3 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.	
1AS–2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.	2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.	

	2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.	
	2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).	
Geometry		
1G–1 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.	2G–1 Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.	
1G–2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.		

Mathematics Assessment – Year 3 Assessment Grids based on Ready-to-Progress Criteria (DfE June 2020)		Transition Notes
Year 2	Year 3	
Number and Place Value		
2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.	3NPV–1 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–2 Recognise the place value of each digit in <i>three</i> -digit numbers, and compose and decompose <i>three</i> -digit numbers using standard and non-standard partitioning.	
2NPV–2 Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.	3NPV–3 Reason about the location of any <i>three</i> -digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.	
	3NPV–4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.	
Number Facts		
2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice.	3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.	
	3NF–2 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–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example: $80 + 60 = 140$ $140 - 60 = 80$ $30 \times 4 = 120$ $120 \div 4 = 30$	
Calculation		
2AS–1 Add and subtract across 10, for example: $8 + 5 = 13$ $13 - 5 = 8$	3AS–1 Calculate complements to 100, for example: $46 + ? = 100$	

2AS–2 Recognise the subtraction structure of ‘difference’ and answer questions of the form, “How many more...?”.	3AS–2 Add and subtract up to three-digit numbers using columnar methods.	
2AS–3 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.	3AS–3 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.	
2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.		
2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.	3MD–1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.	
2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).		
Fractions		
	3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.	
	3F–2 Find unit fractions of quantities using known division facts (multiplication tables fluency).	
	3F–3 Reason about the location of any fraction within 1 in the linear number system.	
	3F–4 Add and subtract fractions with the same denominator, within 1.	
Geometry		

2G–1 Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.	3G–1 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–2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.	

Mathematics Assessment – Year 4 Assessment Grids based on Ready-to-Progress Criteria (DfE June 2020)		Transition Notes
Year 3	Year 4	
Number and Place Value		
3NPV–1 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.	4NPV–1 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.	
3NPV–2 Recognise the place value of each digit in <i>three</i> -digit numbers, and compose and decompose <i>three</i> -digit numbers using standard and non-standard partitioning.	4NPV–2 Recognise the place value of each digit in <i>four</i> -digit numbers, and compose and decompose <i>four</i> -digit numbers using standard and non-standard partitioning.	
3NPV–3 Reason about the location of any <i>three</i> -digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.	4NPV–3 Reason about the location of any <i>four</i> -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.	
3NPV–4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.	4NPV–4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.	
Number Facts		
3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.	4NF–1 Recall multiplication and division facts up to 12 x 12, and recognise products in multiplication tables as multiples of the corresponding number.	
3NF–2 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.	4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, for example: $74 \div 9 = 8 \text{ r } 2$ and interpret remainders appropriately according to the context.	
3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example: $80 + 60 = 140$ $140 - 60 = 80$ $30 \times 4 = 120$ $120 \div 4 = 30$	4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100), for example: $8 + 6 = 14$ and $14 - 6 = 8$ so $800 + 600 = 1400$ $1400 - 600 = 800$ $3 \times 4 = 12$ and $12 \div 4 = 3$ so $300 \times 4 = 1200$ and $1200 \div 4 = 300$	
Calculation		

3AS–1 Calculate complements to 100, for example: $46 + ? = 100$	4MD–1 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.	
3AS–2 Add and subtract up to three-digit numbers using columnar methods.	4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.	
3AS–3 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.	4MD–3 Understand and apply the distributive property of multiplication.	
3MD–1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.		

Fractions		Transition Notes
3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.	4F–1 Reason about the location of mixed numbers in the linear number system.	
3F–2 Find unit fractions of quantities using known division facts (multiplication tables fluency).	4F–2 Convert mixed numbers to improper fractions and vice versa.	
3F–3 Reason about the location of any fraction within 1 in the linear number system.	4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers, for example: $\frac{7}{5} + \frac{4}{5} = \frac{11}{5}$ $3\frac{7}{8} - \frac{2}{8} = 3\frac{5}{8}$ $7\frac{2}{5} + \frac{4}{5} = 8\frac{1}{5}$ $8\frac{1}{5} - \frac{4}{5} = 7\frac{2}{5}$	
3F–4 Add and subtract fractions with the same denominator, within 1.		
Geometry		

3G–1 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.	4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.	
	4G–2 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.	
3G–2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.	4G–3 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.	

Mathematics Assessment – Year 5 Assessment Grids based on Ready-to-Progress Criteria (DfE June 2020)		Transition Notes
Year 4	Year 5	
Number and Place Value		
4NPV–1 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.	5NPV–1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.	
4NPV–2 Recognise the place value of each digit in <i>four</i> -digit numbers, and compose and decompose <i>four</i> -digit numbers using standard and non-standard partitioning.	5NPV–2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.	
4NPV–3 Reason about the location of any <i>four</i> -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.	5NPV–3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.	
4NPV–4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.	5NPV–4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.	
	5NPV–5 Convert between units of measure, including using common decimals and fractions.	
Number Facts		
4NF–1 Recall multiplication and division facts up to 12 x 12, and recognise products in multiplication tables as multiples of the corresponding number.	5NF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.	
4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, for example: $74 \div 9 = 8 \text{ r } 2$ and interpret remainders appropriately according to the context.	5NF–2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth), for example: $8 + 6 = 14$ $0.8 + 0.6 = 1.4$ $0.08 + 0.06 = 0.14$ $3 \times 4 = 12$ $0.3 \times 4 = 1.2$ $0.03 \times 4 = 0.12$	
4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100), for example: $8 + 6 = 14$ and $14 - 6 = 8$ so $800 + 600 = 1400$ $1400 - 600 = 800$ $3 \times 4 = 12$ and $12 \div 4 = 3$ So $300 \times 4 = 1200$ and $1200 \div 4 = 300$		

Calculation		
4MD–1 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.	5MD–1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.	
4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.	5MD–2 Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.	
4MD–3 Understand and apply the distributive property of multiplication.	5MD–3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.	
	5MD–4 Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.	
Fractions		
4F–1 Reason about the location of mixed numbers in the linear number system.	5F–1 Find non-unit fractions of quantities.	
4F–2 Convert mixed numbers to improper fractions and vice versa.	5F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.	
4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers, for example: $\frac{7}{5} + \frac{4}{5} = \frac{11}{5}$ $3\frac{7}{8} - \frac{2}{8} = 3\frac{5}{8}$ $7\frac{2}{5} + \frac{4}{5} = 8\frac{1}{5}$ $8\frac{1}{5} - \frac{4}{5} = 7\frac{2}{5}$	5F–3 Recall decimal fraction equivalents for 1/2, 1/4, 1/5 and 1/10, and for multiples of these proper fractions.	
Geometry		
4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.	5G–1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.	

<p>4G–2 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.</p>	<p>5G–2 Compare areas and calculate the area of rectangles (including squares) using standard units.</p>	
<p>4G–3 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.</p>		

Mathematics Assessment – Year 6 Assessment Grids based on Ready-to-Progress Criteria (DfE June 2020)		Transition Notes
Year 5	Year 6	
Number and Place Value		
5NPV–1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.	6NPV–1 Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).	
5NPV–2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.	6NPV–2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.	
5NPV–3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.	6NPV–3 Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.	
5NPV–4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.	6NPV–4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.	
5NPV–5 Convert between units of measure, including using common decimals and fractions.		
Number Facts		
5NF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.		
5NF–2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth), for example: 8 + 6 = 14 0.8 + 0.6 = 1.4 0.08 + 0.06 = 0.14 3 x 4 = 12 0.3 x 4 = 1.2 0.03 x 4 = 0.12		
Calculation		

5MD–1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.	6AS/MD–1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).	
5MD–2 Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.	6AS/MD–1 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.	
5MD–3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.	6AS/MD–3 Solve problems involving ratio relationships.	
5MD–4 Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.	6AS/MD–4 Solve problems with 2 unknowns.	

Fractions		Transition Notes
5F–1 Find non-unit fractions of quantities.	6F–1 Recognise when fractions can be simplified, and use common factors to simplify fractions.	
5F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.	6F–2 Express fractions in a common denomination and use this to compare fractions that are similar in value.	
5F–3 Recall decimal fraction equivalents for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$, and for multiples of these proper fractions.	6F–3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.	
Geometry		
5G–1 Compare angles, estimate and measure angles in degrees ($^{\circ}$) and draw angles of a given size.	6G–1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.	
5G–2 Compare areas and calculate the area of rectangles (including squares) using standard units.		

