Maths Overview 2021-2022

	Busy Bees/Reception (Early Years)	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Autumn 1 **Autumn 2**	• Getting to know you-taking time to play and getting to know the children (Cardinal principle) • Recognising repeated patterns • Exploring 2d shape (circles and tringles) • Representing 1, 2, 3 Comparing 1,2, 3 Composition of 1,2, 3 • Partitioning to 3 • Partitioning to 5 • Number bonds to 5 • Representing numbers to 5 • Comparing amounts • One more and one less • Shapes with 4 sides • Time	**Previous Reception experiences and counting within 100** • 1NPV–1 Count within 100, forwards and backwards, starting with any number. • 1.9 Composition of numbers: 20–100 **(limit to 10)** **Comparison of quantities and part–whole relationships** • 1NPV–1 Count within 100, forwards and backwards, starting with any number. • 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =. • 1.1 Comparison of quantities and measures • 1.2 Introducing 'whole' and 'parts': part–part–whole **Numbers 0 to 10** • 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =. • 1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. **Recognise, compose, decompose and manipulate 2D and 3D shapes** • 1G–1 Recognise common 2D and 3D shapes presented in different orientations • 1G–2 Compose 2D and 3D shapes from smaller shapes to match an example	**Numbers 10 to 100** • 2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers. • 2NPV–2 Reason about the location of any two-digit number in the linear number system. • 1.8 Composition of numbers: multiples of 10 up to 100 • 1.9 Composition of numbers: 20–100 **Calculations within 20** • 2AS–1 Add and subtract across 10. • 2AS–2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?". • 1.11 Addition and subtraction: bridging 10 • 1.12 Subtraction as difference **Fluently add and subtract within 10** • 2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice. • 1.7 Addition and subtraction: strategies within 10 **Addition and subtraction of two-digit numbers (1)** • 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. • 1.13 Addition and subtraction: two-digit and single-digit numbers • 1.14 Addition and subtraction: two-digit numbers and multiples of ten	**Numbers to 1,000** • 3NPV–1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10 • 3NPV–2 Recognise the place value of each digit in three-digit numbers • 3NPV–3 Reason about the location of any three-digit number in the linear number system • 3NPV–4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 • 3AS–1 Calculate complements to 100. • 3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). **Adding and subtracting across 10** • 2AS–1 Add and subtract across 10. • 3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. • 1.11 Addition and subtraction: bridging 10	**Review of column addition and subtraction** • 3AS–2 Add and subtract up to three-digit numbers using columnar methods. • 1.20 Algorithms: column addition • 1.21 Algorithms: column subtraction **Numbers to 10,000** • 4NPV–1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100. • 4NPV–2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers. • 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. • 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100). **Perimeter** • 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. **3, 6, 9 times tables** • 4NF–1 Recall multiplication and division facts up to 12×12, and recognise products in multiplication tables as multiples of the corresponding number.

		Numbers 0 to 20	**Introduction to multiplication**	**Right angles**	**7 times table and patterns**
Spring 1	-Introducing 0	• 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =. • 1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. • 1.4 Composition of numbers: 6–10 **Additive structures** • 1AS–2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. • 1.5 Additive structures: introduction to aggregation and partitioning • 1.6 Additive structures: introduction to augmentation and reduction **Addition and subtraction facts within 10** • 1NF–1 Develop fluency in addition and subtraction facts within 10. • 1.7 Addition and subtraction: strategies within 10	• 2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. • 2.2 Structures: multiplication representing equal groups • 2.3 Times tables: groups of 2 and commutativity (part 1) • 2.4 Times tables: groups of 10 and of 5, and factors of 0 and 1 • 2.5 Commutativity (part 2), doubling and halving **Introduction to division structures** • 2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotative division). • 2.6 Structures: quotative and partitive division **Shape** • 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. **Addition and subtraction of two-digit numbers (2)** • 2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers. • 1.15 Addition: two-digit and two-digit numbers • 1.16 Subtraction: two-digit and two-digit numbers	• 3G–1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes **Manipulating the additive relationship and securing mental calculation** • 3AS–3 Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. • 3AS–2 Add and subtract up to three-digit numbers using columnar methods. **2, 4, 8 times tables** • 3MD–1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotative and partitive division. • 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 • 2.7 Times tables: 2, 4 and 8, and the relationship between them **Column subtraction** • 3AS–2 Add and subtract up to three-digit numbers using columnar methods. • 1.21 Algorithms: column subtraction	• 4NF–1 Recall multiplication and division facts up to 12×12, and recognise products in multiplication tables as multiples of the corresponding number. • 2.9 Times tables: 7 and patterns within/across times tables **Understanding and manipulating multiplicative relationships** • 4MD–1 Multiply and divide whole numbers by 10 and 100 • 4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. • 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) **Coordinates** • 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.
	-Comparing numbers to 5				
	-Composition of 4 and 5				
	-Compare Mass				
	-Compare capacity				
	-6, 7 and 8				
	-Making pairs				
Spring 2	-Combining two groups				
	-Length and Height				
	-Time				
	-9 and 10				
	-Comparing numbers to 10				
	-Number bonds to 10				
	-3d shape and pattern				

Summer 1	-Building numbers beyond 10 -Counting patterns beyond 10 -Spatial Reasoning-match, rotate and manipulate -Adding more -Taking away	**Numbers 0 to 20** • 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =. • 1.10 Composition of numbers: 11–19	**Money** **Fractions** **Time**	**Unit 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. • 3F–3 Reason about the location of any fraction within 1 in the linear number system.	**Review of fractions** • 3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. • 3.1 Preparing for fractions: the part–whole relationship
Summer 2	-Spatial Reasoning-compose and decompose -Doubling -Sharing and grouping -Even and odd -Spatial Reasoning-visualise and build -Deepening understanding o patterns and relationships -spatial reasoning and mapping	**Unitising and coin recognition** • 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. • 2.1 Counting, unitising and coins **Position and direction** **Time**	**Position and direction** **Multiplication and division – doubling, halving, quotative and partitive division** • 2.5 Commutativity, doubling and halving • 2.6 Structures: quotative and partitive division **Sense of measure – capacity, volume, mass**	**Non-unit fractions** • 3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. • 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. • 3.3 Non-unit fractions: identifying, representing and comparing • 3.4 Adding and subtracting within one whole **Parallel and perpendicular sides in polygons** • 3G–2 Draw polygons by joining marked points, and identify parallel and perpendicular sides. **Time**	**Fractions greater than 1** • 4F–1 Reason about the location of mixed numbers in the linear number system. • 4F–2 Convert mixed numbers to improper fractions and vice versa. • 4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. **Symmetry in 2D shapes** • 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. **Time** **Division with remainders** • 4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders.

Overview is subject to medium term planning and may be subject to change.