Number & Place Value - Small steps

		Numbers 0-10	Number from 0-20	Comparison of Quantities - Part Whole
Year 1	**Recap Reception-** 1Pupils count within 100 in different ways. **Numbers 0-5** 1 Pupils explain that numbers can represent how many objects there are in a set 2Pupils explain that ordinal numbers show a position and not a set of objects 3Pupils partition numbers one to five in different ways 4Pupils partition the numbers one to five in a systematic way 5Pupils find a missing part when one part and the whole is known 6Pupils show one more and one less than a number using representations. Pupils describe this accurately. 7Pupils show one more and one less than a number using representations. Pupils describe this accurately. 8Pupils use a bar model to represent a whole partitioned into two parts	1Pupils count a set of objects and match the spoken number to the written numeral and number name 2Pupils represent the numbers 6 to 10 using a five and a bit structure 3Pupils identify the whole and parts of the numbers 6 to 10 using the five and a bit structure 4Pupils explore the numbers 6 to 10 using the part whole model and the five and a bit structure 5Pupils explain where 6, 7, 8 and 9 lie on a number line 6Pupils explain what odd and even numbers are and the difference between them 7Pupils explain how even and odd numbers can be partitioned 8Pupils partition numbers 6 to 10 in different ways 9Pupils partition the numbers 6 to 10 in a systematic way 10Pupils identify a missing part when a whole is	1Pupils explain that the digits in the numbers 11 to 19 express quantity 2Pupils explain that the digits in the numbers 11 to 19 express position on a number line 3Pupils identify the quantity shown in a representation of numbers 11 to 19 4Pupils use knowledge of '10 and a bit' to solve problems 5Pupils use knowledge of '10 and a bit' to solve problems 6Pupils explore odd and even numbers within 20 7Pupils double the numbers 6 to 9 and halve the result, explaining what doubling and halving is 8Pupils use knowledge of addition facts within 10 to add within 20 9Pupils use knowledge of subtraction facts within 10 to subtract within 20 10Pupils use knowledge of addition and subtraction facts within 10 to add and subtract within 20 11Pupils measure one object with different non-standard measures and record outcomes 12Pupils measure items using individual cm cubes (Dienes) 13Pupils measure length from zero cm using a ruler 14Pupils estimate length in cm 15Pupils estimate length, measure length and record these values in a table	1 Pupils count a set of objects 2 Pupils compare sets of objects 3Pupils use equality and inequality symbols to compare sets of objects 4 Pupils use equality and inequality symbols to compare expressions 5Pupils explain what a whole is 6Pupils explain that a whole can be split into parts 7Pupils explain that a whole can represent a group of objects 8Pupils identify a part of a whole group 9Pupils explain what a part-whole model is 10Pupils use a part-whole model to represent a whole partitioned into two parts 11Pupils use a part-whole model to represent a whole partitioned into more than two parts
Year 2	**Numbers 10 to 100:** 1Pupils explain that one ten is equivalent to ten ones 2Pupils represent multiples of ten using their numerals 3Pupils represent multiples of ten using their numerals and names 4Pupils represent multiples of ten in an expression or an equation 5Pupils estimate the position of multiples of ten on a 0-100 number line 6Pupils explain what happens when you add and subtract ten to a multiple of ten 7Pupils use knowledge of facts and unitising to add and subtract multiples of ten 8Pupils add and subtract multiples of ten 9Pupils explore the counting sequence for counting to 100 and beyond 10Pupils count a large group of objects by counting groups of tens and the extra ones 11Pupils count a large group of objects by using knowledge of unitising by counting tens and ones 12Pupils represent a number from 20-99 in different ways 13Pupils explain and mark the position of numbers 20-99 on a number line 14Pupils explain that numbers 20-99 can be represented as a length 15Pupils compare two, two-digit numbers 16Pupils partition a two-digit number into tens and ones 17Pupils add two, two-digit numbers by partitioning into tens and ones			
Year 3	**Numbers to 1,000** 1Pupils explain that 100 is composed of ten tens and one hundred ones 2Pupils explain that 100 is composed of 50s 25s and 20s 3Pupils use known facts to find multiples of ten that compose 100 4Pupils will use known facts to find a two-digit number and a one- or two-digit number that compose 100 5Pupils use known facts to find correct complements to 100 6Pupils use known facts to find complements to 100 accurately and efficiently 7Pupils represent a three-digit number which is a multiple of ten using their numerals and names 8Pupils use place value knowledge to write addition and subtraction equations 9Pupils bridge 100 by adding or subtracting in multiples of ten 10Pupils use knowledge of addition and subtraction of multiples of ten bridging the hundreds boundary to solve problems 11Pupils count across and on from 100 12Pupils represent a three-digit number up to 199 in different ways 13Pupils bridge 100 by adding or subtracting a single-digit number 14Pupils find ten more or ten less than a given number 15Pupils cross the hundreds boundary when adding and subtracting any two-digit multiple of ten 16Pupils become familiar with a metre ruler (marked and unmarked intervals, 1 x 1m, 10 x 10cm, 100 x 1cm) 17Pupils measure length and height from zero using whole metres and cm 18Pupils measure length and height from zero using cm 19Pupils convert between m and cm (include whole m to cm, cm to whole m and cm and vice versa) 20Pupils become familiar with a ruler in relation to cm and mm (marked and unmarked intervals, knowing 1cm = 10mm) 21Pupils measure length from zero using mm / whole cm and mm 22Pupils convert between cm and mm (include whole cm to mm, mm to whole cm and mm and vice versa) 23Pupils estimate a length/height, measure a length/height and record in a table 24Pupils use knowledge of place value to represent a three-digit number in different ways 25Pupils represent a three-digit number up to 1000 in different ways 26Pupils use knowledge of the additive relationship to solve problems		27Pupils count in hundreds and tens on a number line 28Pupils identify the previous, next and nearest multiple of 100 on a number line for a three-digit multiples of ten 29Pupils position three-digit numbers on number lines 30Pupils estimate the position of three-digit numbers on unmarked number lines 31Pupils compare one-, two- and three-digit numbers 32Pupils compare two three-digit numbers 33Pupils order sets of three-digit numbers 34Pupils use known facts to add or subtract multiples of 100 within 1000 35Pupils write a three-digit multiple of 10 as a multiplication equation 36Pupils partition three-digit numbers in different ways 37Pupils use known facts to solve problems involving partitioning numbers 38Pupils use known facts to add or subtract to/from multiples of 100 in tens 39Pupils use known facts to add or subtract to/from multiples of 100 in ones 40Pupils add/subtract multiples of ten bridging 100 41Pupils add/subtract to/from a three-digit number in ones bridging 100 42Pupils find 10 more or less across any hundreds boundary 43Pupils use knowledge of adding or subtracting to/from three-digit numbers to solve problems 44Pupils count forwards and backwards in multiples of 2, 20, 5, 50 and 25 45Pupils use knowledge of counting in multiples of 2, 20, 5, 50 and 25 to solve problems 46Pupils become familiar with different weighing scales up to 1kg (intervals of 100g, 200g, 250g and 500g) 47Pupils become familiar with the tools to measure volume and capacity up to 1 litre (intervals of 100ml, 200ml, 250ml and 500ml) 48Pupils measure mass from zero up to 1kg using grams 49Pupils measure mass from zero above 1kg using whole kg and grams 50Pupils measure volume from zero up to 1 litre using ml 51Pupils measure volume from zero above 1 litre using whole litres and ml 52Pupils estimate mass in grams and volume in ml	

Year 4	**Numbers to 10,000:** 1Pupils explain how many tens, hundreds and ones 1,000 is composed of 2Pupils use knowledge of 1,000 to explain common measure conversions 3Pupils use knowledge of 1,000 to solve problems 4Pupils use different strategies to add multiples of 100 5Pupils use different strategies to subtract multiples of 100 6Pupils use knowledge of calculation and common measure conversions to solve problems 7Pupils compose and decompose four-digit numbers in different ways 8Pupils use strategies to make solving calculations more efficient 9Pupils compare and order four-digit numbers 10Pupils calculate efficiently by using knowledge of place value, addition and subtraction 11Pupils explain what rounding is 12Pupils round a four-digit number to the nearest thousand 13Pupils round a four-digit number to the nearest hundred and ten 14Pupils round a four-digit number to the nearest thousand, hundred and ten 15Pupils add up to 3 four-digit numbers using a column addition 16Pupils subtract four-digit numbers using a column subtraction 17Pupils use strategies to make solving calculations more efficient 18Pupils explain how many '100s' and '200s', 1,000 is composed of 19Pupils explain how many '500s' and '250s', 1,000 is composed of			
Year 5	**Numbers up to 1,000,000:** 1 Roman numerals to 1,000 2 Numbers to 10,000 3Numbers to 100,000 4 Numbers to 1,000,000 5 Read and write numbers to 1,000,000 6 Powers of 10 7 10/100/1,000/10,000/100,000 more or less 8 Partition numbers to 1,000,000 9 Number line to 1,000,000 10Compare and order numbers to 100,000 11 Compare and order numbers to 1,000,000 12 Round to the nearest 10, 100 or 1,000 13 Round within 100,000 14 Round within 1,000,000	**Negative numbers:** 1Pupils represent a change story using addition and subtraction symbols 2Pupils interpret numbers greater than and less than zero in different contexts 3Pupils read and write negative numbers 4Pupils explain how the value of a number relates to its position from zero 5Pupils identify and place negative numbers on a number line 6Pupils interpret sets of negative and positive numbers in a range of contexts 7Pupils use their knowledge of positive and negative numbers to calculate intervals 8Pupils explain how negative numbers are used on a coordinate grid 9Pupils use their knowledge of positive and negative numbers to interpret graphs		
Year 6	**Multiples to 1000** 1Pupils use representations to identify and explain patterns in powers of 10 2Pupils compose seven or eight-digit numbers using common intervals 3Pupils use their knowledge of the composition of up to eight-digit numbers to solve problems 4Pupils explain how to read numbers with up to seven digits efficiently 5Pupils recognise and create numbers that contain place-holding zeroes 6Pupils determine the value of digits in numbers up to tens of millions 7Pupils explain how to compare up to eight-digit numbers 8Pupils use their knowledge of the composition of seven-digit numbers to solve problems 9Pupils explain how a seven-digit number can be composed and decomposed into parts 10Pupils identify and explain a pattern in a counting sequence 11Pupils identify numbers with up to seven digits on marked number lines 12Pupils estimate the value and position of numbers on unmarked or partially marked number lines 13Pupils explain why we round and how to round seven-digit numbers to the nearest million 14Pupils explain how to round seven-digit numbers to the nearest hundred thousand 15Pupils explain how to round up to seven-digit numbers to any power of 10 in context 16Pupils identify and explain the most efficient way to solve a calculation	**Multiples to 1000** 1 Pupils explain how ten thousand can be composed 2Pupils explain how one hundred thousand can be composed 3Pupils read and write numbers up to one million (1) 4Pupils read and write numbers up to one million (2) 5Pupils identify and place the position of five-digit multiple of one thousand numbers, on a marked, but unlabelled number line 6Pupils identify and place the position of six-digit multiple of one thousand numbers, on a marked, but unlabelled number line 7Pupils count forwards and backwards in steps of powers of 10, from any multiple of 1,000 8Pupils explain that 10,000 is composed of 5,000s 2,500s and 2,000s 9Pupils explain that 100,000 is composed of 50,000s 25,000s and 20,000s 10Pupils read scales in graphing and measures contexts, by using their knowledge of the composition of 10,000 and 100,000		

Addition and Subtraction - Small steps

Year 1	**Additive Structures** 1 Pupils combine two or more parts to make a whole 2 Pupils explain that addends can be represented in any order. This is called the commutative law 3 Pupils explain that the = sign can be used to show that the whole and the sum of the parts are equal (1) 4 Pupils explain that the = sign can be used to show that the whole and the sum of the parts are equal (2) 5 Pupils add parts to find the value of the whole and write the equation 6 Pupils find the missing addend in an equation 7 Pupils partition a whole into two parts and express this with a subtraction equation 8 Pupils make addition and subtraction stories and write equations to match 9 Pupils represent 'first, then, now' stories with addition equations (1) 10 Pupils represent 'first, then, now' stories with addition equations (2) 11 Pupils represent 'first, then, now' stories with subtraction equations (1) 12 Pupils represent 'first, then, now' stories with subtraction equations (2) 13 Pupils represent different types of stories with subtraction calculations 14 Pupils make addition and subtraction stories, writing equations to match 15 Pupils work out the missing part of an addition story and equation if the other two parts are known 16 Pupils work out the missing part of a subtraction story and equation if the other two parts are known 17 Pupils explain that addition and subtraction are inverse operations (1) 18 Pupils explain that addition and subtraction are inverse operations (2) 19 Pupils use additive structures to think about addition and subtraction equations in different ways	**Adding and Subtracting- Facts within 10-** 1 Pupils explain that addition is commutative 2 Pupils find pairs of numbers to 10 (1) 3 Pupils find pairs of numbers to 10 (2) 4 Pupils add and subtract 1 from any number 5 Pupils explain what the difference is between consecutive numbers 6 Pupils explain what happens when 2 is added to or subtracted from odd and even numbers 7 Pupils explain what the difference is between consecutive odd and even numbers 8 Pupils explain what happens when zero is added to or subtracted from a number 9 Pupils explain what happens when a number is added to or subtracted from itself 10 Pupils represent different types of stories with subtraction calculations 11 Pupils use knowledge and strategies to add 5 and 3 and 6 and 3	
Year 2	**Fluently add and Subtract within 10:** 1 Pupils demonstrate their fluency of addition and subtraction within ten 2 Pupils practise addition and subtraction strategies as required 3 Pupils add three addends 4 Pupils use a 'First… Then… Now" story to add 3 addends 5 Pupils explain that addends can be added in any order **Calculations within 20:** 6 Pupils add 3 addends efficiently 7 Pupils add 3 addends efficiently by finding two addends that total 10 8 Pupils add two numbers that bridge through 10 9 Pupils subtract two numbers that bridge through 10 10 Pupils compare numbers and describe how many more or less there are in each set 11 Pupils calculate the difference 12 Pupils use knowledge of subtraction to solve problems in a range of contexts 13 Pupils explain what the difference is between consecutive numbers 14 Pupils calculate difference when information is presented in a pictogram 15 Pupils calculate difference when information is presented in a bar chart	**Addition and Subtraction of 2 Digit Numbers (1)** 1 Pupils add and subtract one to and from a two-digit number 2 Pupils add and subtract one to and from a two-digit number that crosses a tens boundary 3 Pupils add and subtract one from any two-digit number 4 Pupils use number facts to add a single-digit number to a two-digit number 5 Pupils use number facts to subtract a single-digit number from a two-digit number 6 Pupils use a part-part-whole model to represent addition and subtraction 7 Pupils use number bonds to ten to add a single-digit number to a two-digit number 8 Pupils use number bonds to ten to subtract a single-digit number from a two-digit number 9 Pupils use knowledge of 'make ten' to add a one-digit number to a two-digit number 10 Pupils use knowledge of 'make ten' to subtract a multiple of ten or a single-digit from a two-digit number 11 Pupils solve problems using knowledge of addition and subtraction 12 Pupils find ten more or ten less than a two-digit number (1) 13 Pupils find ten more or ten less than a two-digit number (2) 14 Pupils add and subtract ten to/from a two-digit number 15 Pupils explain the patterns when adding and subtracting ten 16 Pupils use knowledge of adding and subtracting ten to solve problems 17 Pupils use number facts to add a multiple of ten to a two-digit number 18 Pupils use number facts to subtract a multiple of ten from a two-digit number 19 Pupils partition a two-digit number into parts in different ways (two and three parts) 20 Pupils use knowledge of adding and subtracting multiples of ten to solve problems	**Addition and Subtraction of 2 Digit Numbers (2)** 1 Pupils explain strategies used to add 2 Pupils add a two-digit number to a two-digit number 3 Pupils add a two-digit number to a two-digit number when not crossing ten (i) 4 Pupils add a two-digit number to a two-digit number when not crossing ten (ii) 5 Pupils add a two-digit number to a two-digit number when crossing ten 6 Pupils explain strategies used to subtract 7 Pupils subtract a two-digit number from a two-digit number 8 Pupils partition the subtrahend to help with subtraction 9 Pupils subtract a two-digit number from a two-digit number when not crossing ten (i) 10 Pupils subtract a two-digit number from a two-digit number when not crossing ten (ii) 11 Pupils subtract a two-digit number from a two-digit number when crossing ten 12 Pupils subtract efficiently using knowledge of two-digit numbers

Year 3	**Adding and Subtracting across 10:** 1 Pupils add 3 addends 2 Pupils use a 'First.. Then… Now" story to add 3 addends 3 Pupils explain that addends can be added in any order 4 Pupils add 3 addends efficiently 5 Pupils add 3 addends efficiently by finding two addends that total 10 6 Pupils add two numbers that bridge through 10 7 Pupils subtract two numbers that bridge through 10 **Securing mental calculation:** 8 Pupils add two 3-digit numbers using partitioning 9 Pupils add two 3-digit numbers using adjusting 10 Pupils add a pair of 2- or 3-digit numbers using redistribution 11 Pupils subtract a pair of 2- or 3-digit numbers, bridging a multiple of 10, using partitioning 12 Pupils subtract a pair of 2-digit numbers, crossing a ten or hundreds boundary, by finding the difference between them 13 Pupils subtract a pair of three-digit multiples of 10 within 1000 by finding the difference between them 14 Pupils evaluate the efficiency of strategies for subtracting from a 3-digit number 15 Pupils explain why the order of addition and subtraction steps in a multi-step problem can be chosen 16 Pupils accurately and efficiently solve multi-step addition and subtraction problems 17 Pupils understand and can explain that both addition and subtraction equations can be used to describe the same additive relationship (2-digit numbers) 18 Pupils understand and can explain that both addition and subtraction equations can be used to describe the same additive relationship (3-digit numbers) 19 Pupils use knowledge of the additive relationship to rearrange equations 20 Pupils use knowledge of the additive relationship to identify what is known and what is unknown in an equation 21 Pupils use knowledge of the additive relationship to rearrange equations before solving	**Column Addition** 1 Pupils identify the addends and the sum in column addition 2 Pupils use their knowledge of place value to correctly lay out column addition 3 Pupils add a pair of 2-digit numbers using column addition 4 Pupils add using column addition 5 Pupils use their knowledge of column addition to solve problems 6 Pupils add a pair of 2-digit numbers using column addition with regrouping in the ones column 7 Pupils add a pair of 2-digit numbers using column addition with regrouping in the tens column 8 Pupils add using column addition with regrouping 9 Pupils use known facts and strategies to accurately and efficiently calculate and check column addition 10 Pupils use their knowledge of column addition to solve problems	**Column Subtraction** 1 Pupils identify the minuend and the subtrahend in column subtraction 2 Pupils explain the column subtraction algorithm 3 Pupils subtract from a 2-digit number using column subtraction with exchanging from tens to ones 4 Pupils subtract from a 3-digit number using column subtraction with exchanging from hundreds to tens (1) 5 Pupils subtract from a 3-digit number using column subtraction with exchanging from hundreds to tens (2) 6 Pupils evaluate the efficiency of strategies for subtraction
Year 4	**Review Column Addition and Subtraction:** 1 Pupils identify the addends and the sum in column addition 2 Pupils use their knowledge of place value to correctly lay out column addition 3 Pupils add a pair of 2-digit numbers using column addition 4 Pupils add using column addition 5 Pupils use their knowledge of column addition to solve problems 6 Pupils add a pair of 2-digit numbers using column addition with regrouping in the ones column 7 Pupils add a pair of 2-digit numbers using column addition with regrouping in the tens column 8 Pupils add using column addition with regrouping 9 Pupils use known facts and strategies to accurately and efficiently calculate and check column addition 10 Pupils use their knowledge of column addition to solve problems 11 Pupils identify the minuend and the subtrahend in column subtraction 12 Pupils subtract using column subtraction 13 Pupils subtract from a 2-digit number using column subtraction with exchanging from tens to ones 14 Pupils subtract from a 3-digit number using column subtraction with exchanging from hundreds to tens (1) 15 Pupils subtract from a 3-digit number using a column subtraction with exchanging from hundreds to tens (2) 16 Pupils evaluate the efficiency of strategies for subtraction		
Year 5	**Addition & Subtractions:** 1 Mental strategies 2 Add whole numbers with more than four digits 3 Subtract whole numbers with more than four digits 4 Round to check answers 5 Inverse operations (addition and subtraction) Step 6 Multi-step addition and subtraction problems 7 Compare calculations 8 Find missing numbers		

Year 6	1 Add and subtract integers	**Addiing & Subtracting;** 1Pupils add and subtract mentally without bridging a boundary (only one and more than one digit changes) 2Pupils add numbers whilst crossing the millions boundary 3Pupils subtract numbers whilst crossing the millions boundary (multiples of 100,000 and different powers of 10) 4Pupils add and subtract numbers with up to seven digits using column addition and subtraction 5Pupils add and subtract numbers with up to seven digits using column addition and subtraction 6Pupils explore and explain different written and mental strategies to solving addition and subtraction problems 7Pupils solve addition and subtraction problems and explain whether a mental or written strategy would be most efficient

Multiplication and Division- Small steps

Year			
Year 1	**Doubling and Halving** 1Pupils double numbers and explain what doubling means 2Pupils halve numbers and explain what halving means 3Pupils use knowledge of doubles and halves to calculate near doubles and halves	**Multiplication & Division** 1 Count in 2s 2 Count in 10s 3 Count in 5s 4 Recognise equal groups 5 Add equal groups 6 Make arrays 7 Make doubles 8 Make equal groups- grouping	
Year 2	**Introduction into Multiplication:** 1Pupils explain that objects can be grouped in different ways 2Pupils describe how objects have been grouped 3Pupils represent equal groups as repeated addition 4Pupils represent equal groups as repeated addition and multiplication 5Pupils represent equal groups as multiplication 6Pupils explain and represent multiplication when a group contains zero or one items 7Pupils identify and explain each part of a multiplication equation 8Pupils use knowledge of multiplication to calculate the product 9Pupils represent the two times table in different ways 10Pupils use knowledge of the two times table to solve problems 11Pupils explain the relationship between adjacent multiples of two 12Pupils explain that factor pairs can be written in any order 13Pupils represent counting in tens as the ten times table 14Pupils represent the ten times table in different ways 15Pupils explain the relationship between adjacent multiples of ten 16Pupils represent counting in fives as the five times table 17Pupils represent the five times table in different ways 18Pupils explain the relationship between adjacent multiples of five 19Pupils explain how groups of five and ten are related 20Pupils explain the relationship between multiples of five and ten 21Pupils use knowledge of the relationships between the five and ten times tables to solve problems 22Pupils explain how a factor of zero or one affect the product 23Pupils represent multiplication equations in different ways 24Pupils use knowledge of the two, five and ten times tables to solve problems (1) 25Pupils use knowledge of the two, five and ten times tables to solve problems (2) 26Pupils explain what each factor represents in a multiplication story 27Pupils explain what each factor represents in a multiplication story when one of the factors is one 28Pupils explain how a multiplication equation with two as a factor is related to doubling 29Pupils double two-digit numbers 30Pupils multiply efficiently when one of the factors is two 31Pupils explain how halving and doubling are related 32Pupils explain the relationship between factors and products 33Pupils halve two-digit numbers	**Introduction to Division** 1 Pupils explain that objects can be grouped equally 2Pupils identify and explain when objects cannot be grouped equally 3Pupils explain the relationship between division expressions and division stories 4Pupils calculate the number of equal groups in a division story 5Pupils use their knowledge of skip counting and division to solve problems relating to measure 6Pupils skip count using the divisor to find the quotient 7Pupils use their knowledge of division to solve problems 8Pupils explain that objects can be shared equally 9Pupils use skip counting to solve a sharing problem 10Pupils skip count using the divisor to find the quotient 11Pupils solve a variety of division problems, explaining their understanding	**MULTIPLICATION AND DIVISION – DOUBLING, HALVING, QUOTITIVE AND PARTITIVE DIVISION** 1Pupils identify the patterns and relationships between the 5 and 10 times tables 2Pupils explain the patterns and relationships between the 5 and 10 times tables 3Pupils use their knowledge of the 5 and 10 times tables to solve problems 4Pupils identify and explain relationships between the 5 and the 10 times tables 5Pupils use their knowledge of the 5 and 10 times tables to solve problems 6Pupils explain how times table facts can help to find the quotient (10 times table) 7Pupils explain how times table facts can help to find the quotient (5 times table) 8Pupils explain how times table facts can help to find the quotient (2 times table) 9Pupils explain how a division equation with 2 as a divisor is related to halving 10Pupils explain each part of a division equation and know how they can be interchanged 11Pupils use knowledge of divisibility rules when the divisor is 2 to solve problems 12Pupils use knowledge of divisibility rules when then divisor is 10 to solve problems 13Pupils use knowledge of divisibility rules when the divisor is 5 to solve problems 14Pupils explain how a dividend of zero affects the quotient 15Pupils explain how the quotient is affected when the divisor is equal to the dividend 16Pupils explain how a divisor of one affects the quotient
Year 3	**2,4, 8 Times Table:** 1Pupils represent counting in fours as the 4 times table 2Pupils use knowledge of the 4 times table to solve problems 3Pupils explain the relationship between adjacent multiples of four 4Pupils explain the relationship between multiples of 2 and multiples of 4 5Pupils use knowledge of the relationships between the 2 and 4 times tables to solve problems 6Pupils represent counting in eights as the 8 times table 7Pupils explain the relationship between adjacent multiples of eight 8Pupils explain the relationship between multiples of 4 and multiples of 8 9Pupils use knowledge of the relationships between the 4 and 8 times tables to solve problems 10Pupils explain the relationship between multiples of 2, 4 and multiples of 8 11Pupils use knowledge of the relationships between the 2, 4 and 8 times tables to solve problems 12Pupils use knowledge of the divisibility rules for divisors of 2 and 4 to solve problems 13Pupils use knowledge of the divisibility rules for divisors of 8 to solve problems 14Pupils scale known multiplication facts by 10 15Pupils scale division derived from multiplication facts by 10		

Year 4	**3,6 & 9 Times Table:** 1Pupils represent counting in threes as the three times table 2Pupils explain the relationship between adjacent multiples of three 3Pupils use knowledge of the three times table to solve problems 4Pupils represent counting in sixes as the six times table 5Pupils explain the relationship between adjacent multiples of six 6Pupils use knowledge of the six times table to solve problems 7Pupils use known facts from the five times table to solve problems involving the six times table 8Pupils explain the relationship between multiples of three and multiples of six 9Pupils use knowledge of the relationships between the three and six times tables to solve problems 10Pupils represent counting in nines as the nine times table 11Pupils explain the relationship between adjacent multiples of nine (1) 12Pupils explain the relationship between adjacent multiples of nine (2) 13Pupils use known facts from the ten times table to solve problems involving the nine times table 14Pupils explain the relationship between multiples of three and multiples of nine 15Pupils explain the relationship between pairs of three and nine times table facts that have the same product (1) 16Pupils explain the relationship between pairs of three and nine times table facts that have the same product (2) 17Pupils use the divisibility rules for divisors of three 18Pupils use the divisibility rules for divisors of six (1) 19Pupils use the divisibility rules for divisors of six (2)	**7 Times Table Practice:** 1Pupils represent counting in sevens as the 7 times table 2Pupils explain the relationship between adjacent multiples of seven 3Pupils use their knowledge of the 7 times table to solve problems 4Pupils identify patterns of odd and even numbers in the times tables 5Pupils represent a square number 6Pupils use knowledge of divisibility rules to solve problems	**Division with Remainers:** 1Pupils interpret a division story when there is a remainder and represent it with an equation (i) 2Pupils interpret a division story when there is a remainder and represent it with an equation (ii) 3Pupils interpret a division story when there is a remainder and represent it with an equation (iii) 4Pupils explain how the remainder relates to the divisor in a division equation 5Pupils explain when there will and will not be a remainder in a division equation 6Pupils use knowledge of division equations and remainders to solve problems 7Pupils interpret the answer to a division calculation to solve a problem (i) 8Pupils interpret the answer to a division calculation to solve a problem (ii)	
	Multiplicative relationships: 1Pupils explain what each factor represents in a multiplication equation 2Pupils explain how each part of a multiplication and division equation relates to a story 3Pupils explain where zero can be part of a multiplication or division expression and the impact it has 4Pupils partition one of the factors in a multiplication equation in different ways using representations (I) 5Pupils partition one of the factors in a multiplication equation in different ways using representations (II) 6Pupils explain which is the most efficient factor to partition to solve a multiplication problem 7Pupils use knowledge of distributive law to solve two part addition and subtraction problems, efficiently 8Pupils use knowledge of distributive law to calculate products beyond known times tables facts 9Pupils explain the relationship between multiplying a number by 10 and multiples of 10 10Pupils explain why a zero can be placed after the final digit of a single-digit number when we multiply it by 10 11Pupils explain why a zero can be placed after the final digit of a two-digit number when we multiply it by 10 12Pupils explain why the final digit zero can be removed from a two-digit multiple of 10, when we divide by 10 13Pupils explain why the final digit zero can be removed from a three-digit multiple of 10, when we divide by 10 14Pupils explain the relationship between multiplying a number by 100 and multiples of 100 15Pupils explain why two zeros can be placed after the final digit of a single-digit number when we multiply it by 100 16Pupils explain why two zeros can be placed after the final digit of a two-digit number when we multiply it by 100 17Pupils explain why the last two zeros can be removed from a three-digit multiple of 100 when we divide it by 100 18Pupils explain why the last two zeros can be removed from a four-digit multiple of 100 when we divide it by 100 19Pupils use knowledge of the composition of 100 to multiply by 100 in different ways 20Pupils use knowledge of the composition of 100 to divide by 100 in different ways 21Pupils explain how making a factor 10 times the size affects the product 22Pupils explain how making the dividend 10 times the size affects the quotient 23Pupils explain how making a factor 100 times the size affects the product 24Pupils explain how making the dividend 100 times the size affects the quotient 25Pupils scale known multiplication facts by 100			
Year 5	**Short Multiplication & Short Division:** 1Pupils multiply a two-digit number by a single-digit number using partitioning and representations (no regroups) 2Pupils multiply a two-digit number by a single-digit number using partitioning and representations (one regroup) 3Pupils multiply a two-digit number by a single-digit number using partitioning and representations (two regroups) 4Pupils multiply a two-digit number by a single-digit number using partitioning 5Pupils multiply a two-digit number by a single-digit number using expanded multiplication (no regroups) 6Pupils multiply a two-digit number by a single-digit number using short multiplication (no regroups) 7Pupils multiply a two-digit number by a single-digit number using expanded multiplication (regrouping ones to tens) 8Pupils multiply a two-digit number by a single-digit number using short multiplication (regrouping ones to tens) 9Pupils multiply a two-digit number by a single-digit number using expanded multiplication (regrouping tens to hundreds) 10Pupils multiply a two-digit number by a single-digit number using short multiplication (regrouping tens to hundreds) 11Pupils multiply a two-digit number by a single-digit number using both expanded and short multiplication (two regroups) 12Pupils use estimation to support accurate calculation 13Pupils multiply a three-digit number by a single-digit number using partitioning and representations 14Pupils multiply a three-digit number by a single-digit number using partitioning 15Pupils multiply a three-digit number by a single-digit number using expanded and short multiplication (no regroups) 16Pupils multiply a three-digit number by a single-digit number using expanded and short multiplication (one regroup) 17Pupils multiply a three-digit number by a single-digit number using expanded and short multiplication (multiple regroups) 18Pupils use estimation to support accurate calculation 19Pupils divide a two-digit number by a single-digit number using partitioning and representations (no remainders, no exchanging) 20Pupils divide a two-digit number by a single-digit number using partitioning and representations (with exchanging) 21Pupils divide a two-digit number by a single-digit number using partitioning and representations (with exchanging and remainders) 22Pupils divide a two-digit number by a single-digit number using short division (no exchanging, no remainders) 23Pupils divide a two-digit number by a single-digit number using short division (with exchanging) 24Pupils divide a two-digit number by a single-digit number using short division (with exchanging and remainders) 25Pupils divide a three-digit number by a single-digit number using partitioning and representations (no exchanging, no remainders) 26Pupils divide a three-digit number by a single-digit number using partitioning and representations (one exchange, no remainders) 27Pupils divide a three-digit number by a single-digit number using partitioning and representations (with exchanging and remainders) 28Pupils divide a three-digit number by a single-digit number using short division 29Pupils divide a three-digit number by a single-digit number using short division (with exchanging and remainders) 30Pupils solve short division problems accurately when the hundreds digit is smaller than the divisor 31Pupils will use efficient strategies of division to solve problems		**Factors & Multiples:** 1Pupils explain the use of the commutative and distributive laws when multiplying three or more numbers 2Pupils explain the reasons for changing two-factor multiplication calculations to three-factor multiplications 3Pupils explain what a factor is and how to use arrays and multiplication/division facts to find them 4Pupils explain how to systematically find all factors of a number and how they know when they have found them all 5Pupils use a complete list of factors to explain when a number is a square number 6Pupils explain how to identify a prime number or a composite number 7Pupils explain how to identify a common factor or a prime factor of a number 8Pupils explain how to identify a multiple or common multiple of a number 9Pupils explain how to use the factor pairs of '100' to solve calculations efficiently	1Pupils explain the effect of multiplying and dividing a number by 10, 100 and 1,000 (1) 2Pupils explain the effect of multiplying and dividing a number by 10, 100 and 1,000 (2) 3Pupils explain how to multiply and divide a number by 10, 100 and 1,000 (first 'number' two or more non-zero digits)

	Multiplication and Division:	Problem Solving:
Year 6	1 Pupils explain why the product stays the same when one factor is doubled and the other is halved 2 Pupils explain the effect on the product when scaling the factors by the same amount 3 Pupils use their knowledge of equivalence when scaling factors to solve problems 4 Pupils explain the effect on the quotient when scaling the dividend and divisor by 10 5 Pupils explain the effect on the quotient when scaling the dividend and divisor by the same amount 6 Pupils explain how to multiply a three-digit by a two-digit number 7 Pupils explain how to accurately use the method of long multiplication to multiply two, two-digit numbers (no regrouping of ones to tens) 8 Pupils explain how to accurately use the method of long multiplication (with regrouping of ones to tens) 9 Pupils explain how to accurately use the method of long multiplication (with regrouping of ones to tens & tens to hundreds) 10 Pupils explain how to accurately use the method of long multiplication to multiply a three-digit by a two-digit number 11 Pupils explain how to accurately use the method of long multiplication to multiply a four-digit by a two-digit number 12 Pupils explain how to use the associative law to multiply efficiently 13 Pupils explain when it is more efficient to use long multiplication or factorising to multiply by two-digit numbers 14 Pupils explain how to use accurately the methods of short and long division (two and three-digit number by multiples of 10) 15 Pupils explain how to use accurately the method of long division with and without remainders (two-digit by two-digit numbers) 16 Pupils use knowledge of long division to solve problems in a range of contexts (with and without remainders) 17 Pupils explain how to use a ratio chart to solve efficiently: short division 18 Pupils explain how to use a ratio chart to solve efficiently: long division 19 Pupils explain how to use a ratio chart to solve efficiently: long division (II) 20 Pupils explain how to use accurately the method of long division with and without remainders (three-digit by two-digit, four-digit by two-digit numbers) 21 Pupils use long division with decimal remainders (1 decimal place) 22 Pupils use long division with fraction remainders 23 Pupils use long division with decimal remainders (2 decimal places) 24 Pupils use knowledge of the best way to interpret and represent remainders from a range of division contexts 25 Pupils explain how and why a product changes when a factor changes multiplicatively 26 Pupils use their knowledge of multiplicative change to solve problems efficiently (multiplication) 27 Pupils explain how and why a quotient changes when a dividend changes multiplicatively (increase or decrease) 28 Pupils explain how and why a quotient changes when a divisor changes multiplicatively 29 Pupils identify and explain the relationship between divisors and quotients	Pupils explain how addition and subtraction can help to solve multiplication problems efficiently (I) 2 Pupils explain how addition and subtraction can help to solve multiplication problems efficiently (II) 3 Pupils explain how the distributive law applies to multiplication expressions with a common factor (addition) 4 Pupils use their knowledge of the distributive law to solve equations including multiplication, addition and subtraction 5 Pupils explain how addition and subtraction can help to solve division problems efficiently 6 Pupils explain how the distributive law applies to division expressions with a common divisor (addition) 7 Pupils explain how the distributive law applies to division expressions with a common divisor (subtraction) 8 Pupils use their knowledge of the distributive law to solve equations including division, addition and subtraction

Fractions- Small steps

Year 1	**Fractions** 1 Recognise half of an object or shape 2 Find a half of an object or shape 3 Recognise half of a quantity 4 Find half of a quantity 5 Recognise a quarter of an object or shape 6 Find a quarter of an object or shape 7 Recognise a quarter of a quantity 8 Find a quarter of a quantity			
Year 2	1Pupils identify whether something has or has not been split into equal parts 2Pupils name the fraction 'one-half' in relation to a fraction of a length, shape or set of objects 3Pupils name the fraction 'one-quarter' in relation to a fraction of a length, shape or set of objects 4Pupils name the fraction 'one-third' in relation to a fraction of a length, shape or set of objects 5Pupils read and write the fraction notation ½, ⅓ and ¼ and relate this to a fraction of a length, shape or set of objects 6Pupils find half of numbers 7Pupils find ⅓ or ¼ of a number 8Pupils find ¼ and ¾ of an object, shape, set of objects, length or quantity 9Pupils recognise the equivalence of 2⁄4 and ½			
Year 3	**Unit Fractions:** 1Pupils identify a whole and the parts that make it up 2Pupils explain why a part can only be defined when in relation to a whole 3Pupils identify the number of equal or unequal parts in a whole 4Pupils identify equal parts when they do not look the same (i) 5Pupils explain the size of the part in relation to the whole 6Pupils construct a whole when given a part and the number of parts 7Pupils identify how many equal parts a whole has been divided into 8Pupils use fraction notation to describe an equal part of the whole 9Pupils represent a unit fractions in different ways 10Pupils identify parts and wholes in different contexts (i) 11Pupils identify parts and wholes in different contexts (ii) 12Pupils identify equal parts when they do not look the same (ii) 13Pupils compare and order unit fractions by looking at the denominator 14Pupils identify when unit fractions cannot be compared 15Pupils construct a whole when given one part and the fraction that it represents 16Pupils use knowledge of the relationship between parts and wholes in unit fractions to solve problems 17Pupils identify the whole, the number of equal parts and the size of each part as a unit fraction 18Pupils quantify the number of items in each part and connect to the unit fraction operator 19Pupils calculate the value of a part by using knowledge of division and division facts 20Pupils calculate the value of a part by connecting knowledge of division and division facts with finding a fraction of a quantity 21Pupils find fractions of quantities using knowledge of division facts with increasing fluency	**Non-unit fractions** 1Pupils explain that non-unit fractions are composed of more than one unit fraction 2Pupils identify non-unit fractions 3Pupils identify the number of equal or unequal parts in a whole 4Pupils use knowledge of non-unit fractions to solve problems 5Pupils use knowledge of unit fractions to find one whole 6Pupils place fractions between 0 and 1 on a numberline 7Pupils use repeated addition of a unit fraction to form a non-unit fraction 8Pupils use repeated addition of a unit fraction to form 1 9Pupils compare using knowledge of non-unit fractions equivalent to one 10Pupils compare non-unit fractions with the same denominator 11Pupils compare unit fractions 12Pupils compare fractions with the same numerator 13Pupils add up fractions with the same denominator 14Pupils add on fractions with the same denominator 15Pupils add fractions with the same denominator using a generalised rule 16Pupils subtract fractions with the same denominator 17Pupils identify the whole, the number of equal parts and the size of each part as a unit fraction 18Pupils explain that addition and subtraction of fractions are inverse operations 19Pupils subtract fractions from a whole by converting the whole to a fraction 20Pupils represent a whole as a fraction in different ways and use this to solve problems involving subtraction		
Year 4 Icluding decimals.	**Fractions recap:** 1Pupils identify a whole and the parts that make it up 2Pupils explain why a part can only be defined when in relation to a whole 3Pupils identify the number of equal or unequal parts in a whole 4Pupils identify equal parts when they do not look the same 5Pupils explain the size of the part in relation to the whole 6Pupils construct a whole when given a part and the number of parts	**Fractions greater than 1:** 1Pupils explain how to express quantities made up of both whole numbers and a fractional part 2Pupils explain how a quantity made up of whole numbers and a fractional part is composed 3Pupils compose and decompose quantities made of whole numbers and fractional parts 4Pupils accurately label a range of number lines and explain the meaning of each part 5Pupils identify numbers on marked but unlabelled number lines 6Pupils estimate the position of numbers on a number line using fraction sense 7Pupils compare and order mixed numbers using fraction sense 8Pupils compare and order mixed numbers when the whole number is the same 9Pupils compare and order mixed numbers when the whole number and the numerator of the fractional part is the same 10Pupils make efficient choices about the order they solve an addition problem in 11Pupils make efficient choices about the order they solve a subtraction problem in 12Pupils express a quantity as a mixed number and an improper fraction (quarters) 13Pupils convert a quantity from an improper fraction to a mixed number (quarters) 14Pupils express and convert a quantity from an improper fraction to a mixed number (fifths) 15Pupils explain how an improper fraction is converted into a mixed number (any unit) 16Pupils explain how a mixed number is converted into an improper fraction 17Pupils add mixed numbers 18Pupils subtract a proper fraction from a mixed number (converting to an improper fraction first) 19Pupils subtract a mixed number from a mixed number and explain which strategy is most efficient 20Pupils use knowledge of subtraction to choose correct and efficient approaches when subtracting mixed numbers	**Decimals:** 1 Tenths as fractions 2 Tenths as decimals 3 Tenths on a place value chart 4 Tenths on a number line download 5 Divide a 1-digit number by 10 6 Divide a 2-digit number by 10 7 Hundredths as fractions 8 Hundredths as decimals 9 Hundredths on a place value chart 10 Divide a 1- or 2-digit number by 100	**Decimals:** 1 Make a whole with tenths 2 Make a whole with hundredths 3 Partition decimals 4 Flexibly partition decimals 5 Compare decimals 6 Order decimals 7 Round to the nearest whole number 8 Halves and quarters as decimals

Year 5	**Decimal Fractions:** 1 Pupils identify tenths as part of a whole 2 Pupils describe and represent tenths as a decimal fraction 3 Pupils count in tenths in different ways 4 Pupils describe and write decimal numbers with tenths in different ways 5 Pupils compare and order decimal numbers with tenths 6 Pupils explain that decimal numbers with tenths can be composed additively 7 Pupils explain that decimal numbers with tenths can be composed multiplicatively 8 Pupils use their knowledge to calculate with decimal numbers within and across one whole 9 Pupils use their knowledge to calculate with decimal numbers using mental methods 10 Pupils use their knowledge to calculate with decimal numbers using column addition and subtraction 11 Pupils use representations to round a decimal number with tenths to the nearest whole number 12 Pupils identify hundredths as part of a whole 13 Pupils describe and represent hundredths as a decimal fraction 14 Pupils describe and write decimals numbers with hundredths in different ways 15 Pupils compare and order decimal numbers with hundredths 16 Pupils explain that decimal numbers with hundredths can be partitioned in different ways 17 Pupils use their knowledge of decimal place value to convert between and compare metres and centimetres 18 Pupils explain that different lengths can be composed additively and multiplicatively 19 Pupils use their knowledge of decimal place value to solve problems in different contexts 20 Pupils use their knowledge to calculate with decimal numbers up to and bridging one tenth	**Continued** 21 Pupils use their knowledge to calculate with decimal numbers using column addition and subtraction 22 Pupils round a decimal number with hundredths to the nearest tenth 23 Pupils round a decimal number with hundredths to the nearest whole number 24 Pupils read and write numbers with up to 3 decimal places 25 Pupils compare and order numbers with up to 3 decimal places **Equivalent Fractions:** 27 Pupils explain the relationship within families of equivalent fractions 28 Pupils use their knowledge of equivalent fractions to solve problems 29 Pupils explain and represent how to divide 1 into different amounts of equal parts 30 Pupils identify and describe patterns within the number system 31 Pupils use their knowledge of common equivalents to compare fractions with decimals 32 Pupils practise recalling common fraction-decimal equivalents 33 Pupils use their knowledge of common fraction-decimal equivalents to solve conversion problems in a range of contexts 34 Pupils use their knowledge of common equivalents to compare fractions with decimals beyond one 35 Pupils use their knowledge of simplifying calculations by substitution to solve problems in a range of contexts	Find fractions equivalent to a unit fraction Find fractions equivalent to a non-unit fraction Recognise equivalent fractions Convert improper fractions to mixed numbers Convert mixed numbers to improper fractions Compare fractions less than 1 Order fractions less than 1 Compare and order fractions greater than 1 Add and subtract fractions with the same denominator Add fractions within 1 Add fractions with total greater than 1 Add to a mixed number Add two mixed numbers Subtract fractions Subtract from a mixed number Subtract from a mixed number – breaking the whole Subtract two mixed numbers	Multiply a unit fraction by an integer Multiply a non-unit fraction by an integer Multiply a mixed number by an integer Calculate a fraction of a quantity Fraction of an amount Find the whole Use fractions as operators
Year 6	**Fractions, Decimals & Percentages:** 1 Pupils explain how to write a fraction in its simplest form 2 Pupils reason and apply their knowledge of how to write a fraction in its simplest form 3 Pupils use their knowledge of how to write a fraction in its simplest form when solving addition and subtraction problems (1) 4 Pupils use their knowledge of how to write a fraction in its simplest form when solving addition and subtraction problems (2) 5 Pupils use their knowledge of how to write a fraction in its simplest form when solving multiplication problems 6 Pupils explain, using an image, how to add related fractions (unit fractions) 7 Pupils explain what is meant by 'related fractions' 8 Pupils explain, without using an image, how to add related fractions 9 Pupils use their knowledge of adding related fractions to solve problems in a range of contexts 10 Pupils explain, with and without using an image, how to subtract related fractions (unit fractions) 11 Pupils use their knowledge of adding and subtracting related fractions to solve problems in a range of contexts 12 Pupils explain, with and without using an image, how to add and subtract related fractions (non-unit fractions) 13 Pupils explain, with and without using an image, how to add and subtract related fractions (non-unit fractions that bridge the whole) 14 Pupils use their fraction sense to fraction addition, subtraction and comparison 15 Pupils explain how to add or subtract non-related fractions with different denominators 16 Pupils use their knowledge of adding or subtracting non-related fractions with different denominators to solve problems in a range of contexts (non related fractions) 17 Pupils explain how to compare pairs of non-related fractions (converting to common denominators) 18 Pupils explain how to compare pairs of non-related fractions (using fraction sense) 19 Pupils explain how to compare pairs of non-related fractions (using common numerators) 20 Pupils explain which method for comparing non-related fractions is most efficient 21 Pupils explain how to multiply two unit fractions 22 Pupils explain how to multiply two non-unit fractions 23 Pupils explain how to divide a unit fraction by a whole number 24 Pupils explain how to divide a non-unit fraction by a whole number 25 Pupils explain when and how to divide efficiently a fraction by a whole number 26 Pupils explain what percent means 27 Pupils explain how to represent a percentage in different ways 28 Pupils explain how to convert percentages to decimals and fractions (with a denominator of 100) 29 Pupils explain how to convert a percentage to a fraction (without denominator of 100) 30 Pupils use their knowledge of fraction-decimal-percentage conversions to solve conversion problems in a range of contexts 31 Pupils use their knowledge of calculating 50%, 10% and 1% of a number to solve problems in a range of contexts 32 Pupils use their knowledge of calculating common percentages of a number to solve problems in a range of contexts 33 Pupils use their knowledge of calculating any percentage of a number to solve problems in a range of contexts 34 Pupils explain how to solve problems where the percentage part and the size of the part is known and the whole is unknown 35 Pupils explain how to solve problems where the known percentage part and the size of the part changes the whole			

Shape- Small steps

Year 1	**Shape** 1Pupils compose pattern block images 2Pupils copy, extend and develop repeating and radiating pattern block patterns 3Pupils compose tangram images 4Pupils investigate tetromino and pentomino arrangements 5Pupils investigate ways that four cubes can be composed into different 3D models 6Pupils explore, discuss and compare 3D shapes 7Pupils identify 2D shapes within 3D shapes 8Pupils explore, discuss and compare 2D shapes 9Pupils explore, discuss and identify circles and shapes that are not circles from shape cut-outs 10Pupils explore, discuss and identify triangles and shapes that are not triangles from shape cut-outs 11Pupils explore, discuss and identify rectangles (including squares) from shape cut-outs	
Year 2	1Pupils learn that a polygon is a 2D shape with straight sides that meet at vertices 2Pupils describe polygons and find different ways to sort them 3Pupils learn that polygons can be sorted and named according to the number of sides and vertices 4Pupils discuss, and compare by direct comparison, the shape and size of polygons 5Pupils discuss, and compare by direct comparison, the vertices of polygons 6Pupils investigate how polygons can be joined and folded to form 3-dimensional shapes 7Pupils describe 3-dimensional shapes and find different ways to sort them 8Pupils discuss, and compare by direct comparison, the shape and size of 3-dimensional shapes	
Year 3	1Pupils make compound shapes by joining two polygons in different ways (same parts, different whole) 2Pupils investigate different ways of composing and decomposing a polygon (same whole, different parts) 3Pupils draw polygons on isometric paper 4Pupils use geostrips to investigate quadrilaterals with and without parallel and perpendicular sides 5Pupils make and draw compound shapes with and without parallel and perpendicular sides 6Pupils learn to extend lines and sides to identify parallel and perpendicular lines 7Pupils make and draw triangles on circular geoboards 8Pupils make and draw quadrilaterals on circular geoboards 9Pupils draw shapes with given properties on a range of geometric grids	**Shapes and Angles:** 1 Turns and angles 2 Right angles 3 Compare angles 4 Measure and draw accurately 5 Horizontal and vertical 6 Parallel and perpendicular 7 Recognise and describe 2-D shapes 8 Draw polygons

Year 4	1 Pupils complete a symmetrical pattern 2 Pupils compose symmetrical shapes from two congruent shapes 3 Pupils investigate lines of symmetry in 2D shapes by folding paper shape cut-outs 4 Pupils find lines of symmetry in 2D shapes using a mirror 5 Pupils reflect polygons in a line of symmetry 6 Pupils reflect polygons that are dissected by a line of symmetry	**Shapes and Angles:** 1 Understand angles as turns 2 Identify angles 3 Compare and order angles 4 Triangles 5 Quadrilaterals 6 Polygons 7 Lines of symmetry 8 Complete a symmetric figure	**Perimeter:** 1 A regular polygon has sides that are all the same length and interior angles that are all equal in size 2 Perimeter is the distance around the edge of a two-dimensional shape 3 Different shapes can have the same perimeter 4 Perimeter is measured in units of length and can be found by counting units 5 Perimeter can be calculated by adding together the side lengths of a 2D shape 6 The perimeter of a rectangle can be calculated by addition and multiplication 7 Unknown side lengths can be calculated from perimeter and known side lengths 8 The perimeter of a regular polygon can be calculated by multiplication 9 The side length of a regular polygon can be calculated by division where the perimeter is known
Year 5	**Area & scaling:** 1 Pupils explain what area is and can measure using counting as a strategy (1) 2 Pupils explain what area is and can measure using counting as a strategy (2) 3 Pupils explain how to make different shapes with the same area 4 Pupils explain how to compare the area of different shapes 5 Pupils measure the area of flat shapes area using square centimetres 6 Pupils measure the area of flat shapes area using square metres 7 Pupils calculate the area of a rectangle using multiplication 8 Pupils calculate the area of rectilinear shapes 9 Pupils use their knowledge of area to solve problems 10 Pupils compare and describe lengths by using their knowledge of multiplication 11 Pupils use their knowledge of multiplication to solve comparison and change problems 12 Pupils compare and describe lengths by using their knowledge of division 13 Pupils use their knowledge of division to solve comparison and change problems 14 Pupils compare and describe measurements by using their knowledge of multiplication and division (mass/capacity/time) (1) 15 Pupils compare and describe measurements by using their knowledge of multiplication and division (mass/capacity/time) (2) 16 Pupils describe the changes in measurements using their knowledge of multiplication and division 17 Pupils use their knowledge of multiplication and division to solve comparison and change problems	**Angles:** 1 Pupils compare the size of angles where there is a clear visual difference 2 Pupils use the terms acute, obtuse and reflex when describing the size of angles or amount of rotation with relation to right angles 3 Pupils use a unit called degrees (°) as a standard unit to measure angles 4 Pupils estimate the size of angles in degrees using angle sets 5 Pupils measure the size of angles accurately using a protractor	

Year 6	**Area**: Pupils explain how to calculate the area of a parallelogram 2Pupils explain how to calculate the area of a triangle 3Pupils explain why shapes can have the same perimeters but different areas 4Pupils explain why shapes can have the same areas but different perimeters 5Pupils describe the relationship between scale factors and side lengths of two shapes 6Pupils describe the relationship between scale factors and perimeters of two shapes

Money- Small steps

	Money	Length and Height	Mass, Capacity & Temperature	Time
Year 1	**Money** 1 Pupils explain the value of a 1p coin in pence 2 Pupils recognise and explain the value of 2p, 5p and 10p coins 3 Pupils explain that a single coin can be worth several pennies 4 Pupils use knowledge of the value of coins to solve problems 5 Pupils calculate the total value of the coins in a set of 2p coins 6 Pupils calculate the total value of the coins in a set of 5p coins 7 Pupils calculate the total value of the coins in a set of 10p coins 8 Pupils compare sets of 2p, 5p and 10p coins 9 Pupils relate what they have learnt to a real-life context 10 Pupils work out how many coins are needed to make a value of 10p 11 Pupils work out how many coins are needed to make a total value of 20p 12 Pupils use knowledge of the value of coins to solve problems	**Length and Height** 1 Pupils explain that items can be compared using length and height 2 Pupils explain that items can be compared using weight/mass and volume/capacity 3 Compare lengths and heights 4 Measure lengths using objects.	**Mass, Capacity & Temperature** 1 Heavier & lighter 2 Measure mass 3 Compare mass 4 full and empty 5 Compare volume 6 Measure capacity 7 Compare capacity	**Time** 1 Before and after 2 Days of the week 3 Months of the year 4 Hours, minutes, seconds 5 Tell the time to the hour 6 Tell the time to half an hour.
Year 2	**Money:** 1 Count money - pence 2 Count money - pounds (notes and coins) 3 Count money - pounds and pence 4 Choose notes and coins 5 Make the same amount 6 Compare amounts of money 7 Calculate with money 8 Make a pound 9 Find change 10 Two-step problems	**Length & Height** 1 Measure in cm 2 Measure in m 3 Compare Lengths & Heights 4 Order lengths & heights 5 4 operations with lengths & heights	**Mass, Capacity & Temperature** 1 Compare mass 2 Measure in g 3 Measure in kg 4 4 operations with mass 5 Compare capacity 6 Measure in ml 7 Measure in L 8 4 operations with capacity. 9 Comparing and ordering temperatures.	**Time:** 1 O'clock and half past 2 Quarter past and quarter to 3 Tell time past the hour 4 Tell time to the hour 5 Tell the time to 5 minutes 6 Minutes in an hour 7 Hours in a day

Year 3	**Money:** 1 Pounds and pence 2 Convert pounds and pence 3 Add money 4 Subtract money 5 Find change	**Length and perimeter** 1 Measure in m and cm. 2 Measure in mm. 3 Measure in cm and mm. 4 Measure in m cm and mm. 5 Equivalent lengths (m and cm). 6 Equivalent lengths (cm and mm). 7 Compare lengths. 8 Add lengths. 9 Subtract lengths. 10 What is perimeter? 11 Measure perimeter. 12 Calculate perimeter.	**Mass & Capacity** 1 Use scales 2 Measure mass in grams 3 Measure mass in kilograms and grams 4 Equivalent masses (kilograms and grams) 5 Compare mass 6 Add and subtract mass 7 Measure capacity and volume in millilitres 8 Measure capacity and volume in litres and millilitres 9 Equivalent capacities and volumes (litres and millilitres) 10 Compare capacity and volume 11 Add and subtract capacity and volume	**Time** 1 Roman numerals to 12 2 Tell the time to 5 minutes 3 Tell the time to the minute 4 Read time on a digital clock 5 Use am and pm 6 Years, months and days 7 Days and hours 8 Hours and minutes – use start and end times 9 Hours and minutes - use durations 10 Minutes and seconds 11 Units of time 12 Solve problems with time
Year 4	**Length:** 1 Measure in kilometres and metres 2 Equivalent lengths (kilometres and metres) 3 Find missing lengths in rectilinear shape	**Area:** What is area? Count squares Make shapes Compare areas	**Money:** 1 Write money using decimals 2 Convert between pounds and pence 3 Compare amounts of money 4 Estimate with money 5 Calculate with money 6 Solve problems with money	**Time:** 1 Years, months, weeks and days 2 Hours, minutes and seconds 3 Convert between analogue and digital times 4 Convert to the 24 hour clock 5 Convert from the 24 hour clock
Year 5	**Converting units:** 1Pupils apply memorised unit conversions to convert between units of measure (larger to smaller units - whole number conversions) 2Pupils apply memorised unit conversions to convert between units of measure (smaller to larger units - whole number conversions) 3Pupils convert from and to fraction and decimal fraction quantities of larger units 4Pupils derive common conversions over 1 5Pupils carry out conversions that correspond to 100 parts 6Pupils solve measures problems involving different units 7Pupils understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints 8Pupils convert between miles and kilometres 9Pupils solve problems involving converting between units of time	**Volume:** Cubic centimetres Compare volume Estimate volume Estimate capacity	**Perimeter:** 1 Perimeter of rectangles 2 Perimeter of rectilinear shapes	

Year 6	**Converting Units:** 1 Metric measures 2 Convert metric measures 3 Calculate with metric measures 4 Miles and kilometres 5 Imperial measures	**Perimeter & Volume:** 1 Area and perimeter 2 Volume - counting cubes 3 Volume of a cuboid

Potition & Direction- Small steps

Year 1	**Position & Direction** 1 Describe turns 2 Describe position- Left and Right 3 Describe position- Forwards and backwards. 4 Describe position- Above and below. 5 Ordinal numbers.
Year 2	1 Language of position 2 Describe movement 3 Describe turns 4 Describe movement and turns 5 Shape patterns with turns
Year 3	NA
Year 4	**Coordinates:** 1Pupils give directions from one position to another on a grid 2Pupils move objects including polygons on a grid according to directions, and mark the new position 3Pupils describe translations of polygons drawn on a square grid 4Pupils draw polygons specified by translations 5Pupils mark points specified as a translation from the origin 6Pupils mark the position of points specified by coordinates in the first quadrant of a coordinate grid, and write coordinates for already-marked points 7Pupils draw polygons specified by coordinates in the first quadrant 8Pupils translate polygons in the first quadrant
Year 5	**Coordinates:** 1 Read and plot coordinates 2 Problem solving with coordinates 3 Translation 4 Translation with coordinates 5 Lines of symmetry 6 Reflection in horizontal and vertical lines
Year 6	**Coordinates:** 1 The first quadrant 2 Read and plot points in four quadrants 3 Solve problems with coordinates 4 Translations 5 Reflections

Statistics- Small steps

Year	Small steps
Year 1	NA
Year 2	1 Interpret and make tally charts 2 Tables 3 Block diagrams 4 Draw and Interpret p 5 Shape patterns with turns.
Year 3	1 Interpret pictograms 2 Draw pictograms 3 Interpret bar charts 4 Draw bar charts 5 Collect and represent data 6 Two-way tables
Year 4	1 Interpret charts 2 Comparison, sum and difference 3 Interpret line graphs 4 Draw line graphs
Year 5	1 Draw line graphs 2 Read and interpret line graphs 3 Read and interpret tables 4 Two-way tables 5 Read and interpret timetables
Year 6	1 Line graphs 2 Dual bar charts 3 Read and interpret pie charts 4 Pie charts with percentages 5 Draw pie charts 6 The mean

Ratio & Proportion- Small steps

EYFS	NA
Year 1	NA
Year 2	NA
Year 3	NA
Year 4	NA
Year 5	NA
Year 6	1 Add or multiply? 2 Use ratio language 3 Introduction to the ratio symbol 4 Ratio and fractions 5 Scale drawing 6 Use scale factors 7 Similar shapes 8 Ratio problems 9 Proportion problems 10 Recipes

Ratio & Proportion- Small step

EYFS	NA
Year 1	NA
Year 2	NA
Year 3	NA
Year 4	NA
Year 5	NA
Year 6	1 1-step function machines 2 2-step function machines 3 Form expressions 4 Substitution 5 Formulae 6 Form equations 7 Solve 1-step equations 8 Solve 2-step equations 9 Find pairs of values 10 Solve problems with two unknowns