Our Lady of Perpetual Succour Catholic Primary School

Maths I Can Statements/Progression
Number and Place Value

Reception	Count objects, actions and sounds. Compare numbers. Count beyond ten. Subitise Link the number symbol (numeral) with its cardinal number value. Understand the 'one more than/one less than' relationship between consecutive numbers Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0-5 and some to 10.
Year 1	I can count numbers to 10 accurately – forward and backward. I can count similar objects up to 10 with accuracy and fluency. I can write all numbers to 10 with numerals and in words; to count only objects of the same name in a group. I can understand what zero represents and use it when counting. I can compare different sets of objects and say which one has fewer, more or is equal. I can order numbers to 10 and know which number is greater or is lesser in value. I can compare numbers using the terms '1 more' and '1 less'. I can count numbers up to 20. The key strategy is to begin by making 10. I can recognise, read and write numbers up to 20 in words and numerals. I can use the terms 'greater than' or 'less than' to compare numbers within 20. I can arrange numbers up to 20 in ascending and descending order. I can look for patterns with numbers up to 20, focusing on one more and one less than a number. I can use the making 10 strategy to count numbers above 10; to represent numbers on a number line. I can use the ten-frame method of organisation and place-value cards to assist pupils in writing numbers to 40; to encourage multiple ways of counting, including counting by 2, 5 and 10. I can understand that digits represent tens and ones; to represent numbers using Base 10 materials and numbers. I can use place value to compare two or three numbers and determine which number is bigger/smaller; to arrange three numbers in order of size. I can compare numbers using number bonds, 100-squares and number lines to determine how much more/less. I can observe and use number patterns; to see number lines in conjunction with number squares in order to create visual proportionality. I can count in sequences of 10 followed by counting ones; to increase confidence with number lines and Base 10 materials in order to count numbers to 100. I can understand the value of the tens and ones digits in a number; to use multiple methods of representing and constructing a number. I can review and extend skills and strategies related to number comparison; to place numbers in order from smallest to greatest and vice versa. I can see patterns of numbers when increasing or decreasing by 1, 2 or 5; to use a number line, a 100-chart and Base 10 materials to represent numbers.
Year 2	I can count numbers up to 100 using concrete objects: counting up by ones and tens. I can understand each digit in a number has its own value.

Our Lady of Perpetual Succour Catholic Primary School

	I can compare numbers using place-value knowledge gained from previous lessons. I can use the number bond strategy to deepen understanding of place value. I can count in ones and tens; to introduce boundary crossing using tens and ones. I can recognise and describe patterns with more complex numbers, in particular 3 and 5. I can use place-value knowledge to think about the effects of each digit in a number.
Year 3	I can learn to count in hundreds and understand the place value. Pupils will also understand how many hundreds are needed to make 1000. I can compose and decompose numbers consisting of hundreds, tens and ones. I can understand the value of each digit in a 3-digit number. I can compare and order numbers. I can count in fifties. I can recognise, describe and continue a number pattern. I can recognise, describe and complete more complicated number patterns. I can count in fours and eights.
Year 4	I can count in hundreds, and twenty-fives. I can count in thousands. I can count in thousands, hundreds, tens and ones. I can use an understanding of place value to count. I can understand place value in a 4-digit number. I can compare and order numbers. I can compare and order 4-digit numbers. I can make number patterns (100, 10, 1 more and less). I can make number patterns (4-digit numbers). I can count in sixes, sevens and nines. I can round numbers to the nearest 1000. I can round numbers to the nearest 10, 100 and 1000. I can round numbers to estimate. **Roman Numerals** I can write Roman numerals (to 20). I can write Roman numerals to 100.
Year 5	I can read and represent numbers to 100 000. I can read and represent numbers to 1 000 000. I can read and represent numbers to 1 000 000 using number discs. I can compare numbers to 1 000 000 using place value. I can compare numbers to 1 000 000 using pictorial representations and proportionality. I can compare numbers to 1 000 000 from pictorial representations, using lists and number lines. I can make and identify patterns in numbers using knowledge of place value. I can make number patterns that decrease in multiples of 10 000 or 100 000. I can round numbers to the nearest 10 000 using number lines and bar graphs. I can round numbers to the nearest 100 000 using number lines and bar graphs. I can round numbers to the nearest 100, 1000, 10 000 and 100 000 using number lines.

	Roman Numerals I can write Roman numerals to 1000. I can write numbers in their thousands in Roman numerals.
Year 6	I can create and identify numbers to 10 000 000; to write in numerals and words numbers to 10 000 000. I can construct and record numbers to 10 000 000; to recognise the value of digits to 10 000 000. I can recognise and construct numbers to 10 000 000 using an abacus; to recognise the value of digits in numbers to 10 000 000 and write numbers using numerals and words. I can compare numbers to 10 000 000 using place value. I can compare and order numbers to 10 000 000; to create combinations of numbers using a fixed number of digits. I can round numbers to 10 000 000 to the nearest million, hundred thousand and ten thousand. I can round numbers to the nearest appropriate number up to and including millions; to determine when rounding is appropriate and to which value. **Negative Numbers** I can add and subtract negative numbers using a number line. I can create number stories using negative numbers.

Addition and Subtraction

Reception	
Year 1	I can understand that a number is made up of other numbers; to find as many ways possible to construct a number. I can use number bonds for storytelling. I can add two different numbers within I can add by counting on. I can complete number sentences and gain an understanding of inverse operations. I can make addition stories using correct vocabulary. I can solve addition problems through pictures. I can understand that subtraction can be done by crossing out or taking away. I can subtract using number bonds. I can solve a subtraction equation by counting back, using a number line as support. I can make subtraction sentences. I can solve picture problems involving subtraction. I can solve problems in the context of addition and subtraction and to find the corresponding number families. I can learn to add by counting on from the largest number. I can add to numbers by first making 10 and then adding on the remainder. I can add by separating the ones and ten. This enables pupils to add the sum of the ones to the ten. I can learn how to subtract by counting back from the largest number. I can learn how to subtract by subtracting from only the ones column.

Our Lady of Perpetual Succour Catholic Primary School

	I can subtract a certain amount of ones from 10 rather than from the ones, as there are not enough ones. I can go through number facts derived from addition and subtraction sentence I can decide whether addition or subtraction is the most appropriate operation; to use and apply number bonds and visual representations to solve word problems. I can use and apply concepts of how many more and how many fewer/less; to apply number bonds and the guess-and-check method to solve word problems. I can develop number sentences based on word problems; to improve the use of number bonds and one-to-one bar model representations to suit the question. I can use pictorial representations to help solve word problems; to choose the correct operation to solve a word problem. I can use visual representations and patterns to solve word problems; to develop precision in model drawing to recognise similarities and differences. I can apply addition and subtraction to multi-step word problems; to use number bonds to make 10 when adding
Year 2	I can add a 1-digit number to a 2-digit number without regrouping the ones. I can add tens by recognising its relationship to adding ones. I can add 2-digit numbers where one is a multiple of 10. I can add with tens and ones where the ones are both more than zero. I can add 1-digit numbers to a 2-digit number resulting in renaming of ones. I can add two 2-digit numbers where renaming is expected. I can subtract ones from a 2-digit number. I can subtract 2-digit multiples of 10 from 2-digit multiples of 10. I can subtract tens from a 2-digit number with the ones being more than zero. I can subtract a 2-digit number by another 2-digit number. I can subtract a 2-digit number by a 1-digit number with renaming. I can subtract a 2-digit number by another 2-digit number where renaming has to occur. I can add three 1-digit numbers.
Year 3	I can understand the commutative law of addition and the corresponding addition and subtraction facts. I can add a 3-digit number to a 1-digit number with no regrouping or renaming. I can add a 3-digit number to a multiple of 10 (2-digit number) without regrouping or renaming. I can add multiples of 100 to a 3-digit number without regrouping or renaming. I can add two 3-digit numbers without regrouping or renaming; introduction of the column method of addition. I can add a 3-digit number to a 1-digit number, with renaming. I can add with renaming in tens. I can add two 3-digit numbers with renaming the ones. I can add two 3-digit numbers with renaming the tens. I can add with renaming in ones and tens. I can do simple subtraction by taking away a 1-digit number from a 2-digit number without renaming. I can do simple subtraction by taking away a 1-digit number from a 3-digit number without renaming. I can subtract multiples of 10, up to 90, from a 3-digit number. I can subtract hundreds from a 3-digit number and to subtract multiples of 1 and 10 from a 3-digit number. I can understand simple subtraction of a 3-digit number by another 3-digit number using the column method. I can subtract with renaming in tens and ones. I can subtract with renaming hundreds. I can subtract with regrouping tens and hundreds.

	I can subtract a 3-digit number with zeros. I can solve addition and subtraction problems using the bar model. I can use the bar model to solve problems. I can solve complicated problems involving addition and subtraction using a comparative bar model heuristic. I can solve more complicated problems involving addition and subtraction using a comparative bar model heuristic.
Year 4	I can find totals and sums. I can add without renaming. I can add with renaming (in the ones column). I can add with renaming (in tens and ones). I can add with renaming (in hundreds, tens and ones). I can add using mental strategies (making tens, hundreds and thousands). I can add using mental strategies. I can find the difference. I can subtract without renaming (column subtraction). I can subtract with renaming (in tens and ones). I can subtract with renaming (in hundreds, tens and ones). I can subtract with renaming. I can subtract using mental strategies. I can solve addition and subtraction word problems. I can solve word problems (addition and subtraction). I can solve multi-step word problems.
Year 5	I can add using the 'counting on' strategy with concrete materials and number lines. I can subtract using the 'counting backwards' strategy with concrete materials. I can add numbers within 1 000 000 using rounding and concrete materials. I can use addition and subtraction to solve comparison problems with numbers to 1 000 000. I can add numbers within 1 000 000 using the column method of addition. I can subtract using the column method, number bonds and number discs using numbers to 1 000 000. I can add and subtract using number bonds as a key strategy using numbers within 1 000 000. I can consolidate and refine addition skills and place-value knowledge to solve addition problems. I can subtract numbers to 1 000 000 using concrete materials, the column method and number bonds. I can consolidate and refine subtraction skills and place-value knowledge to solve subtraction problems. I can consolidate and refine subtraction skills and place-value knowledge to solve subtraction problems.
Year 6	See "Four Operations"
<u>Multiplication and Division</u>	
Reception	
Year 1	I can identify equal groupings as the first step in multiplying; to reinforce the idea that the arrangement of objects does not impact on the number of objects. I can understand we can count groups of the same quantity more efficiently; to find multiple ways of counting groups of the same quantity.

	I can organise objects into equal rows in order to begin counting equal numbers efficiently. I can understand that doubling is creating an identical number to the one you started with; to understand that doubling is the same as saying two groups of the same amount. I can solve word problems using equal groupings as the basis for multiplication I can understand how to divide even numbers into equal groups using concrete materials; to determine how many groups will be created from sharing equally. I can understand how to divide even numbers equally into groups; to determine how many objects will be included in each group in order to share equally.
Year 2	I can realise that multiplication is the same as repeated addition with equal groups. I can focus on understanding and learning the 2 times table. I can use concrete materials and pictorial representations to multiply by 2. I can cover the basics of the 5 times table and to highlight multiplication visually as equal groups. I can recall and use the 5 times table. I can introduce the 10 times table by focusing on the numbers found in the 10 times table. I can look at the 10 times table in more detail by looking at patterns and relationships. I can investigate links between the 2, 5 and 10 times tables. I can understand commutative law. I can use knowledge of the 2, 5 and 10 times tables to further investigate commutative law. I can use the 2, 5 and 10 times tables to solve word problems. I can understand that grouping is a way of dividing. I can divide by sharing an amount. I can divide by 2. The two strategies used here are splitting into groups of x and splitting into equal groups of many. I can divide by 5 and identify links with multiplying by 5. I can divide by 10 and identify links with multiplying by 10. I can use multiplication and division skills to identify family facts in a number sentence. I can understand and solve word problems which require the use of the multiplication and division skills covered in this chapter. I can link whether odd or even numbers can be divisible by 2, 5 or 10. I can use multiplication and division knowledge in problem solving and to create equations from questions.
Year 3	I can multiply by 3. I can multiply by 3 using relational properties. I can multiply by 4. I can multiply by 4 and 8. I can multiply by 8; to use commutative law to multiply. I can multiply by 8. I can divide by 3. I can divide by 4. I can find relationships between multiplication and division. I can divide by 4 and 8. I can solve word problems with multiplication. I can solve word problems that involve division. I can solve more word problems involving multiplication and division using the bar model heuristic. I can multiply multiples of 10 by a 1-digit number.

	I can multiply any 2-digit number by a 1-digit number. I can multiply more 2-digit numbers. I can multiply with regrouping. I can understand simple division of a 2-digit number by a 1-digit number. I can divide where there is a need to regroup. I can use long division to divide. I can solve word problems that involve multiplication. I can solve word problems involving division. I can solve more challenging word problems
Year 4	I can multiply by 6. I can multiply by 7. I can multiply by 9. I can multiply by 9 (relational understanding). I can multiply by 11. I can multiply by 12. I can divide by 6. I can divide by 7. I can divide by 9. I can multiply and divide by 11 and 12. I can divide with remainders. I can solve word problems involving multiplication and division. I can solve problems involving multiplication and division. I can solve multi-step problems (in the context of measures). I can solve problems involving multiplication and division (all possibilities). I can solve problems involving multiplication and division (multi-step). I can solve problems involving multiplication and division (scaling/comparison). I can multiply by 0 and 1. I can divide by 1. I can understand commutativity. I can multiply three numbers. I can multiply with multiples of 10. I can multiply 2-digit numbers. I can multiply 2-digit numbers with renaming. I can multiply multiples of 100. I can multiply 3-digit numbers. I can multiply 3-digit numbers (renaming). I can divide 2-digit numbers. I can divide 2-digit numbers with remainders. I can divide 3-digit numbers. I can divide 3-digit numbers with remainders. I can solve multiplication and division word problems.

	I can solve multiplication and division word problems (multi-step).
Year 5	I can consolidate and review multiplication; to find the result of multiplying by a number. I can consolidate and review multiplication; to find the numbers we can multiply by to get a number. I can define and find common factors of numbers to 100. I can identify and name the prime numbers; to recognise prime numbers as numbers that only have 2 factors. I can define and determine prime numbers to 100. I can create and determine square and cubed numbers. I can multiply 1- and 2-digit numbers by 10, 100 and 1000. I can multiply 2- and 3-digit numbers by a 1-digit number using multiple strategies. I can multiply 4-digit numbers by 1-digit numbers. I can multiply 4-digit numbers by 1-digit numbers with regrouping, using a variety of strategies. I can multiply a 4-digit number by a 1-digit number, with regrouping from the ones, tens and hundreds, using multiple methods. I can multiply 2-digit numbers by 2-digit numbers using multiple methods. I can multiply a 2-digit number by a 2-digit number using multiple methods, including the grid method, number bonds and column method, with regrouping. I can multiply a 3-digit number by a 2-digit number, with the grid method and column method as key strategies. I can multiply a 3-digit number by a 2-digit number with regrouping, using the column method as the key strategy. I can find thousands, hundreds and tens in a 4-digit number using concrete materials. I can divide 3- and 4-digit numbers by 1-digit numbers, using number bonds and long division as the key methods. I can divide 4-digit numbers by 1-digit numbers, using number bonds and long division as the key methods. I can divide 3-digit numbers by 1-digit numbers, using long division, short division and mental methods, that give rise to remainders.
Year 6	See “Four Operations”

Four Operations

Year 6	I can use multiple operations and create expressions from a picture; to use the order of operations to solve expressions. I can create and solve expressions using the four operations. I can multiply numbers by multiples of 10; to use number bonds as a key strategy in multiplication. I can multiply 3- and 4-digit numbers by 2-digit numbers without regrouping or renaming; to use both number bonds and the column method as key strategies. I can multiply 3- and 4-digit numbers by 2-digit numbers without regrouping or renaming; to use both number bonds and the column method as key strategies. I can multiply 3- and 4-digit numbers by 2-digit numbers with regrouping and renaming; to use number bonds and pattern recognition as key strategies for multiplication. I can multiply 3- and 4-digit numbers by 2-digit numbers with regrouping and renaming; to use number bonds and the column method as key strategies. I can estimate products of multiplying 3- and 4-digit numbers by a 2-digit numbers; to use knowledge of multiplication to create specific products. I can divide 3-digit numbers by 2-digit numbers using a variety of strategies; to use number bonds, long division and bar models to facilitate division by 2-digit numbers.

	I can divide 4-digit numbers by 2-digit numbers; to use number bonds and long division as the key strategies. I can divide 4-digit numbers by 2-digit numbers using a variety of methods; to use number bonds, long and short division as key methods. I can divide 3-digit numbers by 2-digit numbers giving rise to remainders; to use number bonds and long and short division as key strategies to solve division problems. I can divide 4-digit numbers by 2-digit numbers giving rise to a remainder; to represent the remainder as part of a whole amount of money or decimal I can use the bar model heuristic to solve word problems involving multiplication and division. I can solve word problems using division as the main strategy; to use pictorial representations to support word problems. I can solve word problems involving multiple operations, including multiplication and division. I can find common multiples in real-life situations; to use common multiples in tandem with knowledge of time. I can use common multiples to solve problems; to organise mathematical thinking into tables and lists. I can find the largest common factor of 3-digit numbers; to use multiplication and division to find largest common factors. I can find common factors using concrete materials. I can use prime numbers to create other numbers; to explore prime numbers above 100. I can explore prime numbers using concrete materials; to identify prime numbers using multiplication or division
Ratio and Proportion	
Year 6	I can use ratios and fractions to compare objects; to find the relationship between ratios, percentages and fractions. I can determine the ratio of a quantity using concrete materials; to simplify ratios using concrete materials in addition to division. I can compare more than two quantities using the term 'ratio'; to use bar models to express ratios where there is more than one quantity. I can compare quantity using both fractions and ratios; to use bar model diagrams to represent ratios. I can compare quantities using bar models and common factors; to use multiplication and division to simplify ratios. I can compare numbers using ratios; to make decisions about simplifying ratios using division. I can solve word problems using a variety of heuristics including guess-and-check and bar models; to apply knowledge of ratios to word problems. I can solve word problems using the bar model heuristic; to employ division and multiplication as primary strategies when solving word problems visually. I can apply the guess-and-check and advanced bar model heuristic to ratio word problems.
Algebra	
Year 6	I can determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to express a rule using a letter or symbol. I can determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to express the relationship between consecutive numbers in terms of a symbol or letter. I can determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express the relationship between consecutive numbers in terms of a symbol or letter. I can determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express unknown numbers in terms of a letter or symbol, including using a number before a letter for multiplication.

	I can use a table to identify a pattern; to write algebraic expressions using each of the four operations. I can use examples to identify rules; to write algebraic expressions using each of the four operations; to evaluate algebraic expressions including the use of inverse operations. I can recognise patterns; to write algebraic expressions with two steps; to evaluate algebraic expressions with two steps. I can recognise patterns; to write and evaluate algebraic expressions with two steps; to write and use formulae. I can use formulae to solve problems; to replace a letter/variable with a number then solve the equation; to use inverse operations to solve equations. I can solve equations; to use equations to find unknown values
Fractions, Decimals and Percentages	
Reception	
Year 1	**Fractions** I can split an object (shape) into two equal parts; to identify shapes that have been split into two equal parts. I can split an object (shape) into four equal parts; to identify shapes that have been split into four equal parts. I can share and group objects into halves and quarters; to determine half of a number and a quarter of a number.
Year 2	**Fractions** I can make equal parts from a whole using simple and complex methods. I can show and recognise halves and quarters. I can show and identify more than one quarter using materials and pictures. I can show and identify thirds in shapes; to use the vocabulary 'numerator' and 'denominator' when referring to fractions. I can identify and name fractions by looking at the number of pieces and how many are shaded in. I can recognise equivalent fractions in quarters, thirds and halves. I can compare and order similar fractions by looking at the size of the pieces shaded. I can compare and order fractions with different denominators. I can count the number of wholes and parts to form mixed numbers. I can count in halves and place halves onto a number line using pictures. I can count in quarters and place quarters onto a number line using pictures. I can count in thirds and place thirds onto a number line using pictures. I can find fractions (half) of whole numbers. I can find a fraction (third) of a whole number. I can find a fraction (quarter) of a number. I can find a fraction (half, third, quarter) of a quantity (length).
Year 3	**Fractions** I can count in tenths; to recognise tenths and be able to determine how many tenths are shaded. I can make number pairs to create 1; to combine fractions to make 1. I can add fractions with the same denominator. I can consolidate adding fractions with the same name; to learn how fractions can add to 1. I can subtract fractions with the same name. I can find equivalent fractions through paper folding and shading. I can find equivalent fractions using paper folding and shading. I can find equivalent fractions; to place fractions on a number line.

	I can find fractions equivalent to /2; to use pictorial representations and multiplication to show equivalence. I can find equivalent fractions using concrete objects and pictorial representations. I can find equivalent fractions using pictorial representations and multiplication. I can find the simplest fraction using visualisation and concrete materials. I can find the simplest fraction using pictorial representations and division. I can find equivalent fractions using multiplication and division; to determine whether or not a fraction is equivalent. I can compare the fractions /2 and /4 using pictorial representations and concrete materials. I can compare fractions using pictorial representations; to understand the numerical nature of the numerator. I can compare fractions with different names (denominators) using pictorial representations and number lines. I can add fractions using pictorial representations; to simplify fractions after adding them. I can subtract fractions using pictorial representations; to simplify fractions after they have been subtracted. I can subtract fractions from a whole amount; to use pictorial representations of whole numbers to help subtract fractions. I can determine a fraction of a whole number using pictorial representations. I can find a fraction of a whole number using pictorial representations, multiplication and concrete objects. I can consolidate finding the fraction of a whole number. I can divide 1 between more than 1; to share 1 whole equally between more than 1. I can share more than 1 using pictorial representations and division. I can share more than 1; to recognise a whole and its parts using pictures and number lines. I can show more than 1 whole after sharing a number of items equally; to use pictorial representations to share whole items equally. I can apply bar modelling to represent fractions in word problems; to solve word problems using pictorial representations and abstract methods. I can use bar models to solve word problems involving the fraction /2. I can use bar models to solve word problems involving the fractions /3 and /5.
Year 4	**Fractions** I can count in hundredths. I can write mixed number fractions. I can show mixed number fractions on a number line. I can find equivalent fractions. I can find equivalent fractions (further practise). I can simplify mixed number fractions. I can simplify improper fractions. I can add fractions. I can add fractions (recording answers as a mixed number). I can add fractions (simplest form). I can subtract fractions. I can subtract fractions (equivalence). I can solve word problems. **Decimals** I can record tenths. I can record in tenths. I can record in tenths (in different ways). I can write hundredths.

	I can write hundredths. I can write hundredths (in different ways). I can record hundredths. I can write decimal numbers. I can compare and order decimal numbers. I can create number sequences. I can round decimal numbers. I can write fractions as decimal numbers. I can divide whole numbers by 10. I can divide whole numbers by 100
Year 5	**Fractions** I can divide whole numbers to create fractions; to create mixed numbers and improper fractions when dividing whole numbers. I can write improper fractions and mixed numbers using a number line and pictorial methods. I can find equivalent fractions using pictorial methods. I can compare and order fractions using the pictorial method. I can compare and order improper fractions using the pictorial method. I can compare mixed numbers using pictorial representations; to find common denominators where one fraction is already the common denominator for all fractions in the question. I can make number pairs (number bonds) with fractions with different denominators. I can add unlike fractions by finding a common denominator using pictorial methods. I can add together unlike fractions where the sum is greater than 1, creating mixed numbers or improper fractions. I can add unlike fractions which create improper fractions and mixed numbers that give rise to simplification. I can subtract fractions with different denominators; to subtract fractions from whole numbers. I can subtract fractions where the denominators are not the same; to use bar models as a key strategy for subtracting fractions. I can subtract fractions and mixed numbers from mixed numbers with different denominators. I can multiply fractions by whole numbers creating other fractions, mixed numbers or improper fractions. I can multiply fractions by whole numbers where the product is an improper fraction or mixed number. I can multiply mixed numbers by whole numbers, creating larger mixed numbers. I can multiply mixed numbers by whole numbers in multi-step word problems. **Decimals** I can write decimal numbers. I can read and write decimals. I can compare tenths and hundredths written as decimals. I can order and compare decimals. I can compare and order decimals of amounts. I can write fractions as decimals. I can add and subtract amounts in decimals. I can add and subtract decimals; to add and subtract amounts in pounds and pence. I can add and subtract amounts in pounds and pence. I can add and subtract decimals; to add and subtract amounts in pounds and pence. I can add and subtract decimals to find the smallest possible sum and difference.

Our Lady of Perpetual Succour Catholic Primary School

	I can add and subtract decimals; to find number pairs that add up to 1. I can add and subtract the perimeter of an object using decimals. I can round decimals to the nearest whole number; to round numbers to nearest tenth **Percentage** I can compare quantities; to compare fractions, decimals and percentages; to convert fractions to decimals and percentages. I can convert values of an amount into percentages; to convert fractions into percentages.
Year 6	I can use concrete materials to simplify fractions; to recognise equivalence in fractions to /4. I can simplify fractions using division and common factors; to represent fractions using concrete materials and pictorial representations. I can compare fractions and place them in order from smallest to largest. I can compare and order fractions by finding common denominators. I can compare and order fractions using common factors. Adding and subtracting fractions with different denominators; using pictorial representations to compare fractions and add/subtract. I can add and subtract fractions of different denominators; to develop questions and word problems based on the information provided. I can add and subtract fractions with different denominators. I can add and subtract mixed numbers, including fractions with different denominators; to subtract from the whole and add the remainder back on. I can add and subtract fractions with different denominators; to add and subtract mixed numbers. I can multiply fractions using pictorial representations and abstract methods. I can determine if the commutative law applies to fractions; to multiply fractions using concrete materials and pictorial representations. I can use concrete materials to understand and solve the multiplication of fractions; to simplify equations using pattern blocks. I can divide a fraction by a whole number; to use pictorial representation to divide whole numbers into fractions. I can divide fractions by whole numbers using concrete materials and pictorial representations; to divide fractions when the numerator and divisor are not easily divisible. I can divide fractions by a whole number; to use pictorial representations to support division **Decimals** I can read and write decimals to thousandths; to use concrete materials to represent decimals. I can divide whole numbers by larger whole numbers; to use Base 10 materials to represent tenths, hundredths and thousandths. I can divide whole numbers that give rise to decimals; to calculate decimal fraction equivalents using long division. I can convert fractions into decimals using bar models and long division. I can write fractions as decimals; to use long division as the key strategy for turning fractions into decimals. I can multiply decimals by whole numbers using partitioning or the worded method to help find the solution. I can multiply whole numbers that include a decimal by other whole numbers; to use partitioning and the worded method as key strategies. I can multiply decimals by whole numbers, including regrouping and renaming. I can multiply decimals by whole numbers using a variety of methods; to use the heuristic 'making a list' to help solve a problem. I can divide decimals using number bonds and number discs as the key strategies. I can divide decimals using bar models, number bonds and long division as key strategies, including regrouping and renaming. I can multiply decimals by a 2-digit whole number using number discs and the column method. I can divide decimals by 2-digit numbers using number bonds and the worded method. I can divide decimals by 2-digit whole numbers using number bonds and the worded method.

	Percentage I can find the percentage of a whole number using division and multiplication; to use bar modelling as a pictorial approach to calculating percentage. I can find the percentage of a quantity; to use bar model diagrams to support the division and multiplication of numbers towards the percentage. I can find the percentage change in an amount over time; to calculate the percentage change where the number gives rise to a decimal. I can use percentage, bar models and fractions to compare amounts.
Measures	
Reception	Compare length, weight and capacity.
Year 1	**Height and Length** I can compare height and length by using key terminology. I can measure objects using other items, such as pencils or books. I can measure items using other things - parts of the body in particular. I can introduce the concept of using rulers for measuring. **Time** I can develop familiarity with the analogue clock, including the minute and hour hands; to tell time to the hour on an analogue clock. I can improve familiarity with the analogue clock; to tell time to the half hour using the term 'half past.' I can sequence events in order of time; to use the terms 'next', 'before' and 'after' to describe the order of events. I can estimate an amount of time using seconds, minutes and hours. I can use the terms 'quicker', 'slower', 'earlier' and 'later' when comparing time. I can learn the days of the week and the months of the year and to be able to put them in the correct order. **Money** I can recognise coins and determine their value using size, colour, markings and shape. I can recognise notes and determine their value using colour and markings. **Volume and Capacity** I can compare volume and capacity using the terms 'more than' and 'less than', 'full' and 'empty'. I can find the volume and capacity of a container using non-standard ones. I can describe volume using the terms 'half' and 'quarter' **Mass** I can compare the mass of objects using the terms 'heavy' and 'light', 'heavier than', 'lighter than' and 'as heavy as'. I can find the mass of an object using non-standard ones; to use visualisation skills to estimate the number of ones
Year 2	**Length** I can measure length in metres.

	I can measure length in centimetres. I can compare length for objects using 'greater than' and 'less than' symbols. I can compare different lengths using centimetres as the unit of measure. I can compare and measure various line lengths: both straight and curvy. I can solve problems involving measurement in the context of word problems. I can solve addition and multiplication word problems involving measurement. I can solve addition and division word problems involving measurement. **Mass** I can understand that mass is measured in kilograms and by using weighing scales. I can measure mass in grams and to understand that it is a smaller unit of measure than a kilogram. I can measure mass accurately in grams using weighing scales. I can compare the mass of two different objects accurately. I can compare the mass of three objects and use the appropriate vocabulary. I can solve word problems in the context of mass. I can solve word problems involving mass. **Temperature** I can accurately read temperature in Celsius. I can estimate temperature and to read thermometers to confirm the estimate **Money** I can identify standard UK coins and notes and write their names. I can count notes in sequences of 5 and 10; to recognise the value of notes by appearance. I can count coins in sequences of their value; to recognise the value of coins by appearance. I can represent amounts of money using coins and notes; to count coins and notes using their denominations. I can create equal amounts of money using different coins. I can exchange denominations of money for different coins. I can compare different amounts of money using coins. I can add money together to determine the total amount. I can calculate change from £100 or less; to use the bar model approach to represent amounts of money. I can solve more complex word problems using bar modelling as a primary method **Time** I can tell and write time to 5-minute intervals. I can tell time to 5-minute intervals and to the hour. I can sequence events of the day by looking at analogue clocks and pictures. I can draw hands on an analogue clock to show the correct time. I can find the duration of time using an analogue clock in 30- and 60-minute intervals. I can find the duration of time to 5-minute intervals. I can find the ending of a duration of time from different 5-minute starting points. I can find the ending time in intervals of 5 minutes from delayed starts.

	I can find the starting time from 30-minute and 1-hour interval durations. I can find the start of multiple durations of time using a common end time. I can compare durations of time from the least amount to the most amount of time and vice versa. **Volume and Capacity** I can compare volume in different-sized containers using the terms 'greater than,' 'less than,' 'greatest' and 'least.' I can compare the volume of different containers using non-standard units. I can measure volume using litres and determine whether an amount is 'more than,' 'less than' or 'equal to' a litre. I can measure volume using millilitres and litres; to determine how many ml there are in 1 l. I can solve word problems involving bar models with litres as the standard unit. I can solve word problems using ml and l, including problems involving difference. I can solve word problems involving volume and multiplication.
Year 3	**Length** I can use metres and centimetres to measure objects. I can write length in centimetres only by converting metres to centimetres. I can convert kilometres to metres. I can convert length from metres to kilometres and metres. I can compare two lengths. I can solve measurement-related word problems. I can solve other word problems. I can solve word problems further, involving multiplication. I can solve word problems associated with length using division. I can solve more challenging word problems. **Mass** I can measure mass using weighing scales and compare the mass of objects using grams and kilograms. I can use weighing scales to measure mass when the mass is between multiples of 100 g. I can read values on a scale which are 1 kg or more. I can weigh heavier items where the markers in the scales represent 200 g each. I can solve word problems relating to mass with addition and subtraction. I can solve word problems relating to mass using multiplication. I can solve word problems relating to mass using division. **Volume and Capacity** I can measure volume in millilitres. I can measure capacity in millilitres. I can measure volume using millilitres and litres. I can measure volume in millilitres and litres from a 'homemade' bottle with markings. I can measure volume using millilitres and litres in comparison to 1 l. I can measure larger capacity in litres and millilitres. I can solve basic word problems related to volume. I can solve more word problems.

	I can solve word problems through division. I can solve two-step word problems. **Money** I can consolidate previous learning about denominations of both notes and coins; to use simple addition to count amounts of money. I can name amounts of money including coins above 100p; to regroup and rename 100p as £1 as a key strategy. I can find multiple ways of showing an amount of money. I can add money by adding together the pounds and pence separately. I can add amounts of money together using different methods; to consolidate the addition of pounds and pence separately. I can consolidate 'making a pound' as a strategy for adding amounts of money where the coins equal more than 99p. I can learn the 'make a pound' strategy with number bond diagrams; to consolidate the strategies associated with the addition of money. I can use multiple methods for subtracting amounts of money, including concrete materials and the column method. I can use visual comparison to subtract amounts of money; to consolidate column subtraction where there is no regrouping of pence required. I can use number bonds to subtract amounts of money; to develop number sense through decision making. I can use number bonds as the primary strategy for subtracting amounts of money; to split pounds and pence simultaneously when subtracting amounts of money. I can learn the 'counting on' strategy for calculating change; to consolidate the number bonds strategy for calculating change. I can solve word problems involving money using bar modelling as the key strategy; to learn how to use comparative models where pupils are solving by seeing the smaller amount inside of the larger amount. I can use part-whole bar models to represent word problems; to apply addition and subtraction strategies to solve word problems. **Time** I can use the terms 'a.m.' and 'p.m.' correctly to identify morning or afternoon/evening. I can learn to tell time to the minute; to understand the relationship between the minute hand and hour hand. I can consolidate and apply a variety of vocabulary used to express the time. I can compare analogue and digital time; to represent time using both analogue and digital methods. I can tell time before the hour using the hour and minute hands. I can learn to tell time using 24-hour notation; to use analogue time and 24-hour notation interchangeably. I can tell the time on an analogue clock using Roman numerals. I can measure time in seconds and milliseconds. I can measure time in seconds using a stopwatch; to consolidate previous learning about seconds. I can consolidate measuring time in seconds; to conduct a time experiment using seconds. I can measure time in hours using an analogue clock. I can consolidate the measurement of time in hours. I can measure time in hours using analogue clocks and timelines; to count backwards in time by the hour. I can measure the passage of time in minutes using an analogue clock and a timeline. I can measure time to the minute when it crosses into the next hour; to use number bonds to calculate the passage of time. I can measure time in minutes, counting backwards to determine the starting point; to use number bonds and timelines to calculate the passage of time. I can determine how many seconds are in a minute; to use multiplication to calculate the number of seconds in a number of minutes. I can convert seconds into minutes using number bonds. I can calculate the number of days in a month; to learn which months have 31, 30 and 28/29 days.

	I can find the duration of days for different activities. **Perimeter** I can determine the perimeter of basic shapes; to use grid paper to measure the perimeter of a shape. I can measure the perimeter of a shape using 1 cm grid paper. I can determine the perimeter of different shapes; to create shapes with a specific perimeter. I can find the perimeter of shapes using 2 cm grids; to identify mistakes in others' work. I can calculate the perimeter of a shape using a ruler to measure the side lengths. I can calculate the perimeter of a rectangle using multiplication and addition. I can calculate the perimeter of a square using addition and multiplication; to calculate the perimeter of rectangles and irregular shapes by adding up the length of each side. I can consolidate learning about perimeter using practical word problems; to calculate the perimeter of a rectangle using properties of shapes. I can calculate the perimeter of a square and a rectangle using information previously learned about the properties of shapes. I can calculate the perimeter of a rectangle when a square piece has been removed; to determine the lengths of sides that are not marked based on information about the piece removed.
Year 4	**Time** I can tell the time on a 24-hour clock. I can convert between minutes and seconds. I can convert between hours and minutes. I can solve time problems. I can convert between units of time. I can solve word problems (duration). **Money** I can record amounts of money. I can compare total amounts of money. I can round to the nearest pound (whole number). I can solve money problems (addition and subtraction). I can solve money problems (multiplication). I can solve money problems (comparison). I can estimate amounts of money **Mass** I can measure mass. I can measure mass. I can convert units of mass. I can measure volume. I can measure volume. I can convert units of volume. **Length** I can measure height.

	I can measure length. I can convert units of length. I can convert units of length. **Perimeter** I can measure perimeter in centimetres and millimetres. I can solve problems in measurement (reading scales). **Area** I can find area (by measuring surface coverage). I can measure area. I can measure area (counting squares). I can measure area (counting squares and half squares). I can measure area (using multiplication). I can measure area (shapes in different orientations).
Year 5	**Length** I can convert units of length. I can convert units of length, including centimetres and metres. I can solve problems by converting units of length. I can convert units of mass. I can convert units of mass, including grams into kilograms. I can convert units of mass, including kilograms and pounds. **Time** I can convert units of time. I can convert units of time from days into weeks and months. I can solve problems by converting units of time. **Temperature** I can read the temperature on a thermometer **Perimeter** I can find the perimeter of shapes. I can find shapes with a specific perimeter. I can find the perimeter of different shapes. I can use scale diagrams to find the perimeter of a shape. **Area** I can measure the area of shapes by counting squares. I can measure the area of squares. I can measure the area of a shape. I can measure area in square metres.

	I can find the area of shapes in square metres. I can make an estimation of area in kilometres. **Volume** I can understand the volume of solids. I can find the volume of 3-D shapes. I can find the volume of solids. I can find the capacity of a cuboid. I can find the capacity of rectangular boxes. I can compare and convert units of volume. I can convert units of volume (metric and imperial). I can solve word problems involving volume.
Year 6	**Conversions** I can convert common measurements into metres, centimetres and millimetres. I can convert units of measure into different units; to use knowledge of decimals and fractions to help convert units. I can convert metres into kilometres as units of measure. I can convert units of mass from grams to kilograms using decimals and fractions. I can convert units of volume from millilitres to litres. I can convert units of time from minutes to hours; to represent time using 24-hour notation. **Volume** I can find the volume of cubes and cuboids using concrete materials. I can determine the formula for the volume of cubes and cuboids and apply it to calculate the volume of shapes. I can estimate the volume of objects and spaces; to calculate the volume of boxes using the formula for volume of cubes and cuboids. I can calculate the volume of boxes using the formula for volume of a cube; to expose common misconceptions in volume through a 3-box arrangement. I can solve word problems involving the volume of cubes and cuboids; to apply the formula for the volume of a cube or cuboid.
Word Problems	
Reception	
Year 1	
Year 2	I can decide when it is appropriate to add and/or subtract when solving word problems; to improve the use of bar modelling and decision making based on visual representations. I can use the bar model method to solve word problems looking at the difference between two amounts. I can solve multi-step word problems using bar modelling; to use more than one bar model in a problem to work out the answer. I can use bar modelling to solve multi-step word problems involving unknown quantities
Year 3	
Year 4	

Our Lady of Perpetual Succour Catholic Primary School

Year 5	I can solve word problems involving multiple operations; to identify the operation needed to carry out the plan. I can solve word problems involving multiplication and division using bar models as the main heuristic. I can solve word problems involving multiple operations, identifying key information and representing information using bar model diagrams. I can solve word problems involving multiple operations, using bar models as they key heuristic to represent key information.
Year 6	I can use bar models to solve word problems involving the four operations. I can use the bar model heuristic to solve word problems involving the four operations. I can use the bar model heuristic to solve complex word problems involving time. I can solve complex word problems using pictorial representation and the four operations. I can create and solve word problems that apply the bar model heuristic and working backwards as the main strategies. I can create and solve complex word problems using the four operations.
	Geometry – Position and Direction
Reception	Continue, copy and create repeating patterns.
Year 1	I can learn the appropriate positional language (ordinal numbers) for up to 10 positions. I can name the positions in a queue. I can name positions, including left and right. I can describe the position of objects in relation to one another using varied vocabulary. I can describe movements of objects using varied language. I can understand how to make turns using mathematical language and connect this knowledge to time.
Year 2	
Year 3	
Year 4	I can describe position. I can plot coordinates. I can describe movements. I can describe movements (coordinates).
Year 5	I can name and plot points. I can describe the position of a shape following a translation. I can describe movements and reflecting shapes. I can describe the movement of a 2-D shape when reflected. I can reflect a shape more than once.
Year 6	I can represent negative numbers on both vertical and horizontal number lines. I can describe the positions of objects on a coordinate grid; to use x and y axes to determine the position of objects on a grid. I can describe the position of points using coordinates on a grid. I can draw polygons on a coordinate grid; to recognise polygons on a coordinate grid. I can describe the translation of shapes on a coordinate grid. I can describe refection using a mirror line and the terms 'object' and 'image'. I can reposition objects so they can be reflected in the x and y axis as the mirror line. I can describe the movement of objects using the terms 'translation' and 'refection'. I can use algebra to describe the positions of coordinates in relationship to one another.

	I can represent translation and refection using algebraic notation.
	Geometry – Properties of Shapes
Reception	Select, rotate and manipulate shapes in order to develop spatial reasoning skills. Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.
Year 1	I can recognise four basic 3-D solid shapes: spheres, cubes, cuboids and pyramids. I can recognise 2-D shapes in the everyday environment. I can group shapes using different criteria. I can make patterns using common 2-D shapes.
Year 2	I can identify the number of sides on basic 2-D shapes. I can identify and count the vertices in regular polygons. I can identify lines of symmetry in basic 2-D shapes. I can construct shapes using pattern blocks that have lines of symmetry. I can sort shapes based on number of sides, vertices and other factors. I can draw shapes using square grid and dot grid paper; to copy shapes from sight using grid paper. I can recognise patterns of familiar shapes and colours of up to three objects. I can describe patterns using ordinal numbers and shape names. I can move shapes on a square grid from one position to another using common language. I can turn objects using quarter, half and three-quarter turns both clockwise and anticlockwise on a square grid. I can recognise 3-D shapes by identifying their properties. I can describe 3-D shapes and classify them using faces, vertices and edges. I can describe 3-D shapes based on the number of faces and the 2-D shapes of these faces; to construct nets of shapes into 3-D shapes. I can group 3-D shapes by similar properties. I can form 3-D structures using multiple 3-D objects. I can make and recognise patterns using 3-D shapes.
Year 3	I can learn what makes an angle and identify angles in objects. I can see angles on the inside and outside of objects; to find angles in letters. I can find angles in shapes; to determine the relationship between the number of angles in a shape and the number of sides. I can find right angles in everyday objects; to understand what makes a right angle. I can compare angles using the terms 'right' angle and 'acute' angle; to identify acute angles as smaller angles than right angles. I can identify right angles and acute angles; to recognise and define an obtuse angle. I can make turns using angles vocabulary; to align the language of angles and fractions to describe turns. I can identify, define and create perpendicular lines; to find perpendicular lines in everyday objects. I can identify, define and create parallel lines; to find parallel lines in everyday objects. I can define and identify vertical and horizontal lines; to find vertical and horizontal lines in everyday life. I can describe 2-D shapes using familiar vocabulary about lines and angles. I can draw 2-D shapes in proportion to their size; to identify how big a shape is. I can create 3-D shapes out of nets; to use vocabulary related to 3-D shapes and their properties.

	I can construct 3-D shapes out of clay and discuss their properties. I can describe 3-D shapes using familiar terms; to identify properties of 3-D shapes.
Year 4	I can identify types of angles. I can compare angles. I can classify triangles. I can classify quadrilaterals. I can identify symmetrical figures. I can draw lines of symmetry. I can draw symmetrical figures. I can make symmetrical figures. I can complete symmetrical figures. I can sort shapes.
Year 5	I can know the names and qualities of acute, right, obtuse and reflex angles. I can measure angles using a protractor. I can draw, measure and add angles using a protractor. I can measure angles using a protractor; to identify two angles which add up to 180 degrees on a straight line. I can investigate angles that, when combined, make 360 degrees. I can draw angles using a protractor. I can draw lines and angles with a high level of accuracy. I can describe the sides and angles of both rectangles and squares. I can investigate the angles of various quadrilaterals, including squares and rectangles. I can solve problems involving angles in rectangles. I can solve problems involving angles. I can use our understanding of angles to solve problems. I can investigate regular polygons.
Year 6	I can investigate opposite angles; to use prior knowledge of angles to solve problems involving angles. I can solve problems involving angles using the bar model heuristic; to solve problems involving angles without protractors. I can determine and show the sum of the angles inside a triangle. I can investigate and determine angles in quadrilaterals. I can use the knowledge of angles inside a triangle and a quadrilateral to solve problems involving angles in other shapes. I can name the parts of a circle; to calculate diameter and radius using parts of a circle. I can solve problems involving angles in a circle. I can draw quadrilaterals with specific side lengths and parallel lines; to find the perimeter of shapes and name trapeziums and parallelograms. I can draw triangles using measurements and angles as the starting point; to use a protractor to draw triangles using angles. I can construct triangles using a protractor and ruler; to use ratio to determine the dimensions of a triangle. I can construct the nets of 3-D shapes by identifying the faces and the 2-D shapes that construct them. I can construct the nets of 3-D shapes by identifying the faces and the 2-D shapes that construct them.
	Statistics

Our Lady of Perpetual Succour Catholic Primary School

Reception	
Year 1	
Year 2	I can read a picture graph with confidence. I can read and interpret a picture graph with confidence. I can read and interpret a picture graph where the value of the picture can represent more than 1. I can read and interpret a picture graph where the value of the picture can represent more than 1. I can read, interpret and create a picture graph where the value of the picture can represent more than 1.
Year 3	I can construct picture graphs from a set of data; to present data with pictures that represent more than one item. I can construct bar graphs from a set of data; to use proportion to reflect precise difference in quantity. I can read and interpret information from a bar graph; to use and understand vocabulary related to bar graphs. I can read bar graphs where the scale is not a multiple of all quantities measured. I can read bar graphs where the scale is made up of larger increments
Year 4	I can draw and read picture graphs and bar graphs. I can draw and read bar graphs. I can draw and read line graphs. I can draw and read a line graph. I can draw and read line graphs (drawing focus)
Year 5	I can read the information presented in a table and interpret its meaning. I can read and respond to information presented in a table. I can read and respond to tables that have a variety of data sets. I can read and interpret information provided in a line graph where a single line represents the data. I can read and interpret information presented on a line graph where the data is represented by more than one line. I can read and interpret information presented in a table and turn it into a line graph; to determine relationships between data sets
Year 6	I can calculate the average (mean) of sets of values. I can calculate the mean. I can solve problems involving the mean; to use the mean and the number of values to calculate the total; to use given information to find unknown values. I can show information on graphs; to transfer information from a table to a pie chart. I can read and interpret pie charts. I can read and interpret pie charts; to use percentages in pie charts. I can read and interpret pie charts; to use knowledge of angles to interpret pie charts. I can read line graphs; to interpret the information in line graphs that show distance and time. I can read and interpret line graphs; to answer questions about the information in line graphs. I can convert miles into kilometres and kilometres into miles. I can read and interpret line graphs

Our Lady of Perpetual Succour Catholic Primary School

'We learn to love everyone as Jesus loves us'