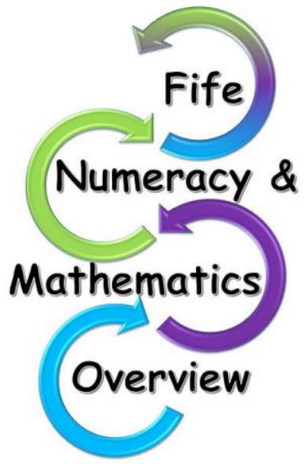


# Number, Money & Measure

***The Number, Money & Measure Progression Overview:***

- Provides a **brief overview** of progression within Number, Money and Measure
- **Aligns with** the ***Number, Money and Measure Progression Pathway***
- **Should be used** in **conjunction** with the ***Number, Money and Measure Progression Pathway*** which exemplifies how to plan for Conceptual Understanding in Numeracy
- **Should not be used** as a standalone document
- **Can be used** as part of **professional dialogue** in relation to **Teacher Professional Judgement**

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| | | **Phase 1 – Prerequisite** | **Phase 1** | **Phase 2** | **Phase 3** | **Phase 4** | **Phase 5** | **Phase 6** | **Phase 7** |
| | | **Estimation and Rounding Mathematical Vocabulary:** Estimate, approximate, approximately, exact, exactly, inverse, round, strategy, solution, reasonableness of a solution, guess, nearly, roughly, close to | | | | | | | |
| **Number and Number Processes (NNP)** | **Estimation and Rounding** | • I can, without counting, recognise regular domino/dice dot patterns<br>• I have had experience of estimating/guessing 'How many …..'<br>• I can anticipate whether an indicated changed to a collection or quantity will make it bigger, smaller or leave it the same | • **I can recognise the number of objects in a group, without counting (subitising) and use this information to estimate the number of objects in other groups.**<br>• I understand and use the language of estimation, e.g. less than, more than, bigger, biggest, smallest, same, longer than<br>• **I can demonstrate skills of estimation in the contexts of number and measure using relevant vocabulary, including less than, longer than, more than and the same.**<br>• **I can check estimates by counting.** | • I can estimate quantities to 100<br>• I can check a solution by comparing with the estimate | • I can estimate the position of any number up to 100 on a number line with decades clearly marked<br>• I can explain the rule for rounding up and down<br>• I can round a 2 digit number to the nearest 10<br>• I can estimate answers to 2-digit sums using different strategies such as rounding and doubling<br>• I can compare my estimate with the solution | • **I can estimate the position of any number up to 100 on a number line/square**<br>• **I can estimate answers to 3-digit sums using different strategies such as rounding and doubling**<br>• **I can round whole numbers to the nearest 10 and 100 and use this routinely to estimate and check the reasonableness of a solution.**<br>• **I can use strategies to estimate an answer to a calculation or problem, for example, doubling and rounding.** | • I can estimate the position of any number up to 10 000 on a number line<br>• I can round a 4-digit number to the nearest 10, 100 or 1000<br>• I can estimate answers to 4-digit calculations using rounding and compare with the solution | • I can estimate the position of any number up to 100 000 on a number line<br>• I can round any whole number to the nearest 10, 100, 1000<br>• I can round numbers with one and two decimal places to the nearest whole number<br>• I can explore situations that always require rounding up | • I can estimate the position of any number up to 1 000 000 on a number line<br>• **I can round whole numbers to the nearest 1000, 10 000 and 100 000**<br>• **I can round decimal fractions to the nearest whole number, to one decimal place and two decimal places.**<br>• **I can apply knowledge of rounding to give an estimate to a calculation appropriate to the context.** |

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| | | **Number Word Sequences Mathematical Vocabulary:** Sequence, forwards, backwards, orders, number words, decimal fractions, negative numbers | | | | | | | |
| **Number and Number Processes (NNP)** | **Number Word Sequences** | • I can say forward number word sequences from 0-5, 0-10 and 0-20<br>• I can say backward number word sequences from 5 and 10<br>• I can continue the forward number word sequence from any given number (0 – 20)<br>• I can continue the backward number word sequence from any given number (0 -10) | • **I can Identify and recognise numbers from 0 to 20.**<br>• **I can recall the number sequence forwards within the range 0 - 30, from any given number.**<br>• **I can recall the number sequence backwards from 20.**<br>• **I can order all numbers forwards and backwards within the range 0 - 20.**<br>• **I can Identify the number before, the number after and missing numbers in a sequence within 20.**<br>• I can say the next 2, 3, 4 numbers in a number word sequence | **Within a 100;**<br>• I can say forward and backward number word sequences, starting from any number<br>• I can say the number word after and number word before<br>• I can say the next 2, 3, 4 numbers in a number word sequence<br>• I can count in tens forwards and backwards on the decade, e.g. 40, 50, 60<br>• I can read, write, orders and recite numbers to 100<br>• | **Within a 100;**<br>• I can count in tens forwards and backwards off the decade e.g. 43, 53, 63<br>• I can say the forward and backward number word sequences in multiples of 2s, 5s and 10s<br>• I can say the next number word before and after in a multiple number sequence in 2s, 10s and 5s<br>• I can count on and back in 10s/1s on and off the decade<br>• I can read, write, orders and recite numbers to 100 | **Within 1000:**<br>• I can say the forward and backward number word sequence for any whole number up to 1000<br>• I can say the forward and backwards number word sequences in multiples of 2s, 5s, 10s and 100s<br>• I can count on and count back in 100s, 10s and 1s on and off the hundred and decade<br>• **Reads, writes, orders and recites whole numbers to 1000, starting from any number in the sequence**<br>• **Counts forwards and backwards in 2s, 5s, 10s and 100s** | • Reads, writes, orders and recites whole numbers to 10 000, starting from any number in the sequence<br><br>**Negative numbers**<br>• I explore through practical contexts how the number line extends to include numbers less than zero<br><br>**Decimal fractions to 1dp**<br>• Reads, writes and orders sets of decimal fractions to one decimal places (1dp) | • Reads, writes, orders and recites whole numbers to 100 000, starting from any number in the sequence<br><br>**Negative numbers**<br>• I can show my understanding, through practical contexts, of how the number line extends to include numbers less than zero<br><br>**Decimal fractions to 2dp**<br>• Reads, writes and orders sets of decimal fractions to two decimal places (2dp) | • **Reads, writes and orders whole numbers to 1 000 000, starting from any number in the sequence.**<br><br>**Negative Numbers**<br>• **Identifies familiar contexts in which negative numbers are used.**<br>• **Orders numbers less than zero and locates them on a number line.**<br><br>**Decimal fractions to 3dp**<br>• **Reads, writes and orders sets of decimal fractions to three decimal places (3dp)** |

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| | | **Counting Mathematical Vocabulary:** Stable order, one to one correspondence, cardinality, abstraction, order irrelevance, subitising, conservation of number, before, after, in-between, ones, total, group | | | | | | | |
| **Number and Number Processes (NNP)** | **Counting (Early Level and First Level Only)** | **Up to 5 (prerequisite) and 10**<br>• Connect and order number names, groups of objects and numerals using numbers<br>• Being to recognise groups of zero to six with counting (subitising)<br>• Know how to count a collection, respecting the five principles of counting*<br>• **I can explain that zero means there is none of a particular quantity and is represented by the numeral 0**<br><br>*Five Principles of Counting:<br>• **Stable Order – names of numbers should be said in the correct order**<br>• **One to one correspondence – counting each item in the group once only**<br>• **Cardinality – the final number said tells you how many are in the group but only if stable order and one to one correspondence has been adhered to**<br>• **Abstraction – anything can be counted including groups that cannot be touched and these are counted in the same way no matter what we are counting**<br>• **Order Irrelevance – order in which objects in a group are counted is irrelevant as there will still be the same number** | • Recognise groups of zero to six without counting (subitising)<br><br>**Up to 20**<br><br>• **I can uses one-to-one correspondence to count a given number of objects to 20.**<br>• **I can identify 'how many?' in regular dot patterns, for example, arrays, five frames, ten frames, dice and irregular dot patterns, without having to count (subitising).**<br>• **I can group items recognising that the appearance of the group has no effect on the overall total (conservation of number).**<br>• **I can uses ordinal numbers in real life contexts, for example, 'I am third in the line'.**<br>• **I can use the language of before, after and in-between.**<br>• **I can count on and back in ones to add and subtract.**<br>• **I can understand that the number name of the last object counted is the name given to the total number of objects in the group when counting objects.** | **Notes for Counting at First Level (these will be met across Number and Number Processes):**<br>• Counting on will give the same answer as starting at the beginning and counting the set<br>• Repeated addition or skip counting can be used as a counting strategy instead of counting by ones<br>• Uses counting as a strategy to solve problems | | | | | |
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| | | **Structure of Number Mathematical Vocabulary:** Partition, total, double, near doubles, have commutative, ones, tens, hundreds, thousands, place value, digit | | | | | | | |
| **Number and Number Processes (NNP)** | **Structure of Number (Early Level and First Level Only)** | • Represent numbers up to 5 in a variety of ways such as modelling and writing<br>• Understand that numbers to 5 can be constructed in multiple ways and that does not affect the total<br>• Understand the line between addition and subtraction with numbers to 5 | • Represent numbers up to 10 in a variety of ways such as modelling and writing<br>• **I can partition quantities to 10 into two or more parts and recognises that this does not affect the total.**<br>• Understand the link between addition and subtraction with numbers to 10<br>• **I can double numbers to a total of 10 mentally.**<br>• Explore odd and even numbers | • I can build and describe numbers to 20;<br>➢ using doubles and near doubles<br>➢ using ten<br>➢ by partitioning through ten<br>➢ using commutative relationships of number | • I can build and describe the value of numbers to 100 using 10s and 1s | • I can build and describe the value of numbers to at least 1000 using 100s, 10s and 1s | | | |

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| | | **Place Value Mathematical Vocabulary:** Grouping, base 10 number system, place value, zero, place holder, digit, ones, tens, hundreds, thousands, one tenth, one hundredth, one thousandth, decimal point, decimal fraction, times, bigger | | | | | | | |
| **Number and Number Processes (NNP)** | **Place Value (First Level Onwards)** | | | **Within 20:**<br>• I can partition numbers using place value<br>• I can show an understanding of zero as a placeholder | **Within 100:**<br>• I can partition numbers using place value<br>• I can demonstrate an understanding of zero as a place holder | **Within 1000:**<br>• I can partition numbers using place value<br>• **I can demonstrate an understanding of zero as a place holder in whole numbers to 1000**<br>• **Identifies the value of each digit in a whole number with three digits, for example,**<br>**867 = 800 + 60 + 7** | • I can describe the value of numbers to at least 10 000 using place value I understand the significance of zero as a place holder in decimal fractions to one decimal place (1p)<br>• I can use standard and non-standard representation when partitioning to whole numbers and decimal fractions to 1dp | • I can describe the value of numbers to at least 100 000 using place value I understand the significance of zero as a place holder in decimal fractions to two decimal places (2dp)<br>• I can use standard and non-standard representation when partitioning to whole numbers and decimal fractions to 2p | • **Explains the link between a digit, its place and its value for whole numbers to 1 000 000.**<br>• **Explains the link between a digit, its place and its value for numbers to three decimal places.**<br>• **Partitions a wide range of whole numbers and decimal fractions to three decimal places, for example, 3·6 = 3 ones and 6 tenths = 36 tenths.** |
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| | | **Phase 1 – Prerequisite** | **Phase 1** | **Phase 2** | **Phase 3** | **Phase 4** | **Phase 5** | **Phase 6** | **Phase 7** |
| | | **Addition and Subtraction Mathematical Vocabulary:** Addition, the '+' sign, augend, addend, zero, plus, and, sum, total, subtraction, the '–' sign, minuend, subtrahend, take away, difference, decomposition, increase, decrease, more than, less than, inverse, commutative, number bonds | | | | | | | |
| **Number and Number Processes (NNP)** | **Addition and Subtraction** | • Record, model and enact simple addition and subtraction of whole numbers up to 5<br>• Solve number story problems up to 5<br>• Use the inverse relationship between addition and subtraction up to 5 | • Record, model and enact simple addition and subtraction of whole numbers up to 10<br>• Solve number story problems up to 10<br>• Use the inverse relationship between addition and subtraction up to 10<br>• **I can use appropriately the mathematical symbols +, − and =**<br>• **I can add and subtract mentally to 10.**<br>• **I can solve simple missing number problems.** | **Within 20**<br>• Know your number bonds to 10<br>• I can recall doubles and halves<br>• I can describe how I solve a variety of addition and subtraction tasks<br>• **I can explore the commutative law e.g. 2+6 is the same as 6+2**<br>• I can use my knowledge of inverse operations<br>• I can use known facts to find unknown facts<br>• I can solve start unknown, change unknown and result unknown | **Within 100**<br>• Know your number bonds to 20<br>• **I can use my knowledge of number bonds**<br>• I can describe how I use my knowledge of number structures to add and subtract from a decade, to a decade and through a decade<br>• I can solve 2-digit addition and subtraction problems mentally or using the suggested written recordings<br>• I can solve start unknown, change unknown and result unknown | **Within 1000**<br>• I can use my knowledge of number bonds to support calculation<br>• **I can solve addition and subtraction problems with three digit whole numbers.**<br>• I can mentally add and subtract within 100 and explain my strategies<br>• **I can add and subtract multiples of 10 or 100 to or from any whole number to 1000.**<br>• **I can solves two step problem.**<br>• I can solve start unknown, change unknown and result unknown<br>• **Uses correct mathematical vocabulary when discussing the four operations including, subtract, add, sum of, total, multiply, product, divide and shared equally** ***(Note: This benchmark goes across a number of areas)*** | • I can use my understanding of number structures to solve a range of addition and subtraction tasks within 10 000<br>• I can use a range of strategies to add/subtract decimal fractions (tenths)<br>• I can choose and justify the most efficient method (mental or written) for the problem given<br>• I can solve start unknown, change unknown and result unknown | • I can use my understanding of number structures to solve a range of addition and subtraction tasks within 100 000<br>• I can add and subtract multiples of 10, 100 and 1000 to whole numbers<br>• I can use a range of strategies to add/subtract decimal fractions<br>• I can choose and justify the most efficient method (mental or written) for the problem given<br>• I can solve start unknown, change unknown and result unknown | • **I can add and subtract whole numbers and decimal fractions to two decimal places, within the number range 0 to 1 000 000.**<br>• **I can add and subtract multiples of 10, 100 and 1000 to and from whole numbers and decimal fractions to two decimal places.**<br>• I have given the opportunity to explore adding and subtracting integers within context, e.g. thermometers<br>• I can choose and justify the most efficient method (mental or written) for the problem given<br>• I can solve start unknown, change unknown and result unknown |

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| | | **Multiplication and Division Mathematical Vocabulary:** Multiplication, the 'x' sign, multiplicand, multiplier, product, multiple, factor, multiplication facts, division, the '÷' sign, dividend, divisor, quotient, remainder, divisible, factor, times, multiply, groups, repeated addition, share, share equally, array, row, column, factor, inverse, share, commutative law, distributive law, place value vocabulary, bigger, smaller, scale | | | | | | | |
| **Number and Number Processes (NNP)** | **Multiplication and Division** | • I have had experience of describing, organising and making equal groups<br>• I have had experience of sharing and grouping | • I can describe, organise and make equal groups<br>• I can describe, organise and partition equal shares<br>• **No Associated Benchmarks at Early Level** | • I can begin to describe, build and count simple arrays<br>• I can use practical materials to;<br>➢ combine and count equal groups to calculate how many altogether (multiplication)<br>➢ partition a collection equally and count the number of groups or number in each group (division)<br>• I can start to recognise the symbols (x, ÷) to represent the operations of multiplication and division and the associated vocabulary<br>• I can begin to recall 2 and 10 multiplication facts (times tables) | • I can build, describe and count arrays<br>• I can use practical materials/pictorial representations to;<br>➢ calculate the total of equal groups (multiplication)<br>➢ solve simple division problems by grouping collections into sets of particular size (division – grouping)<br>➢ Solve simple division problems by sharing into equal groups (division - sharing)<br>• I can recall 2, 5 and 10 multiplication facts (times tables)<br>• I can explore the links between related multiplication facts (times tables)<br>• I can explore how I can use known multiplication facts to find unknown facts<br>• I have explored and engaged in solving 2 step word problems | • I can recall 2, 3, 4, 5 and 10 multiplication facts (times tables)<br>• **I can apply strategies to determine multiplication facts, for example, repeated addition, grouping, arrays and multiplication facts.**<br>• **I can apply strategies to determine division facts, for example, repeated subtraction, equal groups, sharing equally, arrays and multiplication facts.**<br>• **I can apply knowledge of inverse operations (multiplication and division).**<br>• **I can use multiplication and division facts to solve problems within the number range 0 to 1000.**<br>• **I can multiply and divide whole numbers by 10 and 100 (whole number answers only).**<br>• **I can solve two step problem.**<br>• **Uses correct mathematical vocabulary when discussing the four operations including, subtract, add, sum of, total, multiply, product, divide and shared equally (*Note: This benchmark goes across a number of areas)*** | • I can recall 2, 3, 4, 5 and 10 division facts from my known multiplication facts (times tables)<br>• I have experience of how to use known multiplication facts to derive new multiplication facts using a variety of strategies including:<br>➢ the commutative law e.g. 2x6 is the same as 6x2<br>➢ the distributive law e.g. 7x 6 = 5x6 + 2x6<br>• Using known multiplication facts I can multiply and divide:<br>➢ whole numbers by 10, 100 and 1000<br>➢ a multiple of ten by a single digit<br>➢ a 2-digit number by a single digit<br>• I am developing written strategies for x/÷ | • I can recall multiplication facts up to the 10th multiplication table and some division facts<br>• I can use known multiplication facts to find unknown facts<br>• I can start to solve start unknown, change unknown and result unknown<br>• Using known multiplication strategies I can:<br>➢ Multiply 2-digit whole numbers by multiples of ten, for example 25 × 70<br>➢ Divide up to 3-digit numbers by multiples of ten, for example 360 ÷ 30<br>➢ Multiply decimal fractions to 1 dp by at 10, 100 and 1000<br>➢ Divide a 3-digit number, with no remainders, by a single digit, e.g. 639 ÷ 3 = 213<br>• I can choose the most efficient method for the problem given | • **I can use multiplication and division facts to the 10th multiplication table.**<br>• I can solve start unknown, change unknown and result unknown<br>• **I can multiply and divide whole numbers by multiples of 10, 100 and 1000.**<br>• **I can multiply and divide decimal fractions to two decimal places by 10, 100 and 1000.**<br>• **I can multiply whole numbers by two digit numbers.**<br>• **I can multiply decimal fractions to two decimal places by a single digit.**<br>• **I can divide whole numbers and decimal fractions to two decimal places, by a single digit, including answers expressed as decimal fractions, for example, 43 ÷ 5 = 8·6.**<br>• **I can apply the correct order of operations in number calculations when solving multi-step problems.** |

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| | | **Multiples, Factors and Primes Mathematical Vocabulary:** Multiple, factor, prime, quotient, remainder | | | | | | | |
| **Number and Number Processes (NNP)** | **Multiples, Factors and Primes** | | | | | | • I understand what a multiple of a number is and how to generate a sequence of multiples<br>• I understand what a factor of a number is<br>• I can find some of the factors of a given whole number | • I can use known relationships between multiplication and division to find multiples and factor pairs for a given whole number<br>• I can find all the factors of any whole number | • **I can Identify multiples and factors of whole numbers and apply knowledge and understanding of these when solving relevant problems in number, money and measurement.** |

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| | | **Fractions, Decimal Fractions and Percentages Mathematical Vocabulary:** Fraction, proper fraction, numerator, denominator, unitary fraction, non unitary fraction, equivalence, decimal Number, decimal Fraction, decimal Point, percentage, out of 100, increase, decrease, mixed numbers, improper fraction, | | | | | | | |
| **Number and Number Processes (NNP)** | **Fractions, decimal fractions and percentages** | • I have experience of sharing out a group of items equally into smaller groups.<br>• I have experience of using concrete materials to investigate breaking a whole into parts | • **I can share out a group of items equally into smaller groups.**<br>• **I can split a whole into smaller parts and explains that equal parts are the same size.**<br>• **I can use appropriate vocabulary to describe halves.** | • I can use concrete materials and pictorial representations using the correct vocabulary associated with breaking a whole into parts<br>• I have experience of reading and saying fractional notation involving unitary fractions e.g. $\frac{1}{2}$ = one half, $\frac{1}{3}$ = one third, $\frac{1}{4}$ = one quarter etc<br>• I have experience of halving numbers within 20 and begin to recall them | • I can use concrete materials and pictorial representations using the correct vocabulary associated with breaking a whole into parts to model unitary and non unitary fractions<br>• I have experience of reading and saying fractional notation involving non unitary fractions e.g. $\frac{2}{3}$ = two thirds, $\frac{3}{5}$ = three fifths etc<br>• I have experience of finding a half, a fifth and a tenth of a numbers using my known multiplication facts and other strategies<br>• I have experience of exploring simple equivalent fractions using concrete materials and pictorial representations | • **Explains what a fraction is using concrete materials, pictorial representations and appropriate mathematical vocabulary.**<br>• **Demonstrates understanding that the greater the number of equal parts, the smaller the size of each share.**<br>• **I can use the correct notation for common fractions to tenths, for example, $\frac{1}{2}$, $\frac{2}{3}$ and $\frac{5}{8}$.**<br>• **I can use known multiplication and division facts and other strategies to find unit fractions of whole numbers, for example, $\frac{1}{2}$ or $\frac{1}{4}$.**<br>• **Compares the size of fractions and places simple fractions in order on a number line.**<br>• **Explains the role of the numerator and denominator.**<br>• **Uses pictorial representations and other models to demonstrate understanding of simple equivalent fractions, for example, $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$.** | • I can compare and order simple fractions<br>• I can describe and record simple equivalences using concrete materials, pictorial representation and numerically<br>• I can find a unitary fraction of an amount, e.g. 1/8 of 64<br>• I can convert fractions (tenths, hundredths) into decimal fractions<br>• I can simplify basic fractions<br>• I have experience of exploring the part-part-whole relationship e.g. given one half I can find the whole amount | • I can compare and order fractions using knowledge of equivalence<br>• I can find fractions of an amount, e.g. 2/3 of 12, 7/9 of 72<br>• I can convert fractions into decimal fractions and percentages, e.g. ½ = 0.5 = 50%<br>• I can apply understanding of the relationship between fractions, decimal fractions and percentages<br>• I can find simple percentages of quantities, e.g. 25% of £16 or 50% of £24<br>• I can identify where simple decimal fractions lie on a number line | • **I can create equivalent fractions and uses this knowledge to put a set of most commonly used fractions in order.**<br>• **I can express fractions in their simplest form.**<br>• **I can calculate simple percentages of a quantity, and uses this knowledge to solve problems in everyday contexts, for example, calculates the sale price of an item with a discount of 15%.**<br>• **I can use knowledge of equivalent forms of common fractions, decimal fractions and percentages, for example, $\frac{3}{4}$= 0.75 = 75%, to solve problems.**<br>• **I can calculate simple fractions of a quantity and uses this knowledge to solve problems, for example, find $\frac{3}{5}$ of 60.** |

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| | | **Money:** buy, cost, sell, change, spend, spent, amount, value, same, not the same, coin, note, card, price, more, less, least, most, altogether, sale, how much, cheaper, dearer, between, left, pound, pence, purse, change money, coins, value, change, buy, price, cost, sell, spent, pay, expensive (dear), cheap(er/est), less, more, total, worth, cash, cheque, credit, debit, budget, pocket money, expenditure | | | | | | | |
| **Number and Number Processes (NNP)** | **Money** | I have had experience of handling money and understand where it is used in everyday life | • **I can identify (**recognise, name and sort**) all coins to £2.**<br>• I can work out total cost to at least 10p, using a variety of coins<br>• I am beginning to work out change from 10p<br>• **Applies addition and subtraction skills and uses 1p, 2p, 5p and 10p coins to pay the exact value for items to 10p.** | • I can order coins from the least in value to the most<br>• I can use 1p, 2p, 5p, 10p and 20p coins to pay for items up to 50p<br>• I can work out change up to 20p | • I can make use of mental strategies to find the total cost of items up to £1<br>• I can make use of mental strategies to calculate change up to £1<br>• I can use rounding to estimate totals<br>• I can use different combinations of coins and notes, up to at least £10, to make the same amounts of money<br>• I can start to convert from £/p to p and vice-versa where appropriate | • **Records amounts accurately in different ways using the correct notation, for example, 149p = £1·49 and 7p = £0·07**<br>• **I can identify and use all coins and notes to £20 and explores different ways of making the same total.**<br>• **I can use a variety of coin and note combinations, to pay for items and give change within £10.**<br>• **I can apply mental agility number skills to calculate the total spent in a shopping situation and is able to calculate change.**<br>• **I can demonstrate awareness of how goods can be paid for using cards and digital technology** | • I can investigate and use effective mental strategies to carry out calculations involving money<br>• I can select appropriate strategies to solve simple money problems | • I can select appropriate strategies to solve money problems<br>• I can compare costs to determine what is affordable within a given spend including in the context of retailers<br>• I have experience of exploring the costs, benefits and risks of bank cards<br>• I understand the importance of budgeting<br>• I have experience of working out profit and loss in buying and selling activities | • **I can carry out money calculations involving the four operations.**<br>• **I can compare costs and determines affordability within a given budget.**<br>• **I can demonstrate understanding of the benefits and risks of using bank cards and digital technologies.**<br>• **I can calculate profit and loss accurately, for example, when working with a budget for an enterprise activity.** |

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| | | **Phase 1 – Prerequisite** | **Phase 1** | **Phase 2** | **Phase 3** | **Phase 4** | **Phase 5** | **Phase 6** | **Phase 7** |
| | | **Time**: Days of the week: Monday, Tuesday…, months of the year: January, February…, seasons: spring summer…,morning, afternoon, evening, night, light, dark, today, yesterday, tomorrow, o'clock, soon, early, late, hands, before, after, how long…? Always, often, never, sometimes, timer, calendar, time, yesterday, tomorrow, morning, afternoon, evening, midnight, night, day, week, month(s), year, days of the week, seasons, late, early, on time, soon, never, sometimes, always, past, future, weekday, weekend, now, present, o'clock, half past, analogue, digital, seconds, minutes, hours ,days, month ,year, difference, 24 hour notation, analogue, digital, calendar, timetable, decade, century, millennium | | | | | | | |
| **Number and Number Processes (NNP)** | **Time** | • I can recall/discuss order of events<br>• I can begin to recognise vocabulary associated with time in relation to personal events | • **I can link daily routines and personal events to time sequences.**<br>• **I can name the days of the week in sequence, knows the months of the year and talks about features of the four seasons in relevant contexts.**<br>• **I can recognise, talks about and where appropriate, engages with everyday devices used to measure or display time, including clocks, calendars, sand timers and visual timetables.**<br>• **I can read analogue and digital o'clock times (12 hour only) and represents this on a digital display or clock face.**<br>• **I can use appropriate language when discussing time, including before, after, o'clock, hour hand and minute hand.** | • I can tell the time using half past (***note: this is mentioned at early level in the progression pathway***)<br>• I have experience of using and interpreting a visual timetable (***note: this is mentioned at early level in the progression pathway***)<br>• I can start to identify quarter past using analogue and digital clocks<br>• I can record 12-hour time using o'clock and half past<br>• I am beginning to sequence the months of the year<br>• I know there are 7 days in a week and 12 months in a year | • I can tell the time using half past and quarter past.<br>• I can start to identify the time using quarter to on analogue and digital clocks<br>• I can record 12-hour time in am and pm (o'clock, half past and quarter past)<br>• I have experience of using simple 12hr timetables in a real life context<br>• I have experience of using simple calendars in a real life context<br>• I know there are 60 seconds in a minute, 60 minutes in an hour and 24 hours in a day<br>• I can use a variety of timers to measure time<br>• I can sequence the months of the year beginning to link them to seasons<br>• I am beginning to state the number of days in each month | • **I can tell the time using half past, quarter past and quarter to using analogue and digital 12 hour clocks.**<br>• **I can record 12 hour times using am and pm (o'clock, half past, quarter past and quarter to) and is able to identify 24 hour notation, for example, on a mobile phone or computer.**<br>• **I can record the date in a variety of ways, using words and numbers.**<br>• **I can use and interprets a variety of calendars and 12 hour timetables to plan key events.**<br>• **I know the number of seconds in a minute, minutes in an hour, hours in a day, days in each month, weeks and days in a year.**<br>• **I can order the months of the year and relates these to the appropriate seasons.**<br>• **I can select and use appropriate timers for specific purposes.** | • I can tell the time in 5-minute intervals using both analogue and digital clocks (***note: this is mentioned at first level in the progression pathway***)<br>• I can calculate time durations in 5-minute intervals<br>• I can record in 12-hour and beginning to record in 24-hour time<br>• I experience of paper and electronic timetables and calendars set out in both 12-hour clock times<br>• I can convert whole hours to minutes e.g. 2 hours into minutes (120 minutes)<br>• I can calculate simple time durations of activities using 12 hour clock in whole hours<br>• I know that a decade is 10 years<br>• I know that a century is 100 years<br>• I know that a millennium is 1000 years | • I can tell the time in 1-minute intervals using both analogue and digital clocks (***note: this is not mentioned in the progression pathway***)<br>• I can calculate time durations in 1-minute intervals<br>• I can record 12-hour and 24-hour time as well as beginning to convert between the two<br>• I can convert whole hours and half hours to minutes e.g. 1½ hours into minutes (90) or hours and minutes (1hr and 30mins)<br>• I have experience of a range of paper and electronic timetables and calendars set out in both 12 and 24-hour clock times<br>• I can calculate simple time durations of activities using 12 and 24 hour clock in hours and minutes | • **I can read and record time in both 12 hour and 24 hour notation and can convert between the two.**<br>• **I know the relationships between commonly used units of time and carries out simple conversion calculations, for example, changes $1\frac{3}{4}$ hours into minutes.**<br>• **I can use and interpret a range of electronic and paper-based timetables and calendars to plan events or activities and solve real life problems.**<br>• **I can calculate durations of activities and events including situations bridging across several hours and parts of hours using both 12 hour clock and 24 hour notation.**<br>• **I can estimate the duration of a journey based on knowledge of the link between speed, distance and time.**<br>• **I can choose the most appropriate timing device in practical situations and records using relevant units, including hundredths of a second.**<br>• **I can select the most appropriate unit of time for a given task and justifies choice.** |

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| | | **Phase 1 – Prerequisite** | **Phase 1** | **Phase 2** | **Phase 3** | **Phase 4** | **Phase 5** | **Phase 6** | **Phase 7** |
| | | **Measurement:** long, short, longer, shorter, longest, shortest, tall/taller/tallest, thick/thicker/thickest, thin/thinner/thinnest, double, half, heavy, light, heavier, lighter, heaviest, lightest, balance, scales full, empty, more than, less than, half full, half empty, nearly full, nearly empty, almost, width, wide, narrow, area, length, distance, mass, volume, capacity, metre, centimetre, millimetre, kilogram, gram, litre, millilitre, perimeter, 2-D, area, estimate, measure, length, breadth, height, millimetres, centimetres, metres, perimeter, ruler, measuring tape, metre stick, converting units, square cm, area, volume, cubic cm, liquid, capacity, measuring cylinder, scale, balance, mass, gram, kilogram | | | | | | | |
| Number and Number Processes (NNP) | Measurement | • I have experienced using non-standard units to measure.<br>• I have experienced comparing, sorting and ordering objects by size and capacity.<br>• I am beginning to use the language of – tall, short, heavy, light, fuller than, less than.<br>• I am beginning to use language to approximate size and capacity – about, almost, nearly, a bit under, half full.<br>• I am beginning to "best guess" to estimate the size of an object.<br>• I have explored the use of tools to measure. | • I can select an appropriate tool to measure.<br>• I can compare, sort and order objects by size and capacity.<br>• I can recognise when measuring that there should be no gaps or overlaps.<br>• **I can share relevant experiences in which measurements of lengths, heights, mass and capacities are used, for example, in baking.**<br>• **I can describe common objects using appropriate measurement language, including tall, heavy and empty.**<br>• **I can compare and describes lengths, heights, mass and capacities using everyday language, including longer, shorter, taller, heavier, lighter, more and less.**<br>• **I can estimate, then measure, the length, height, mass and capacity of familiar objects using a range of appropriate non-standard units.** | • I can explore the difference between length, height, width, mass, area, volume and capacity.<br>• I can use non-standard units measure length, height, width, mass, volume and area.<br>• I can use appropriate language to describe units of measurement in a context.<br>• I can select the most appropriate tool to measure.<br>• I am beginning to measure the area of a 2D shape using squares and non-standard measures.<br>• I am aware of a relationship between units of measurement.<br><br>*Note: Capacity refers to the maximum amount that a container or space can hold, while volume refers to the amount of space occupied by an object or substance.* | • I can use the language of estimation in relation to measurement.<br>• I can explain the differences between length, height, width, mass and capacity.<br>• I can use standard units to read and measure length, height, width, mass, volume and area.<br>• I can understand the significance of starting at zero on a scale.<br>• I can compare, sort and order objects by size and capacity by focusing on a particular attribute.<br>• I can measure the area of a 2D shape to the nearest square.<br>I can say that 1m is 100cm and vice versa. | • I can say that 1cm is 10mm, 1kg is 1000g, 1l is 1000ml and vice versa.<br>• **I can use knowledge of everyday objects to provide reasonable estimates of length, height, mass and capacity.**<br>• **I can make accurate use of a range of instruments including rulers, metre sticks, digital scales and measuring jugs when measuring lengths, heights, mass and capacities using the most appropriate instrument for the task.**<br>• **I can record measurements of length, height, mass and capacity to the nearest standard unit, for example, millimetres (mm), centimetres (cm), grams (g), kilograms (kg), millilitres (ml), litres (l).**<br>• **I can compare measures with estimates.**<br>• **I can use knowledge of relationships between units of measure to make simple conversions, for example, 1 m 58 cm = 158 cm.**<br>• **I can read a variety of scales on measuring devices including those with simple fractions, for example ½ litre.**<br>• **I can use square grids to estimate then measure the areas of a variety of simple 2D shapes to the nearest half square.**<br>• **I can creates shape with a given area to the nearest half square using square tiles or grids.**<br>• **I can recognise that different shapes can have the same area (conservation of area).** | • I can explore how to use the known size of an object to estimate the size of unfamiliar objects.<br>• I can convert between fractional parts or decimal notation to 1dp when using measurements.<br>• I can explore how to compare, sort and order objects using different standard units.<br>• I can explore, through practical tasks, how the perimeter is calculated.<br><br>• I can begin to see the relationship between counting squares and calculations (eg repeated addition or multiplication) when calculating the area of a 2D shape.<br>• I can begin to explore using cubes to measure containers (volume).<br>I can interpret unnumbered graduations on a whole-numbered scale. | • I can use the known size of an object to estimate the size of unfamiliar objects.<br>• I can convert between fractional parts or decimal notation to 2dp when using measurements.<br>• I can compare, sort and order objects using different standard units.<br>• I can draw squares and rectangles with a given perimeter.<br>• I can calculate the area of a 2D rectangle or square and explain the method used.<br>• I can begin to see the relationship between counting cubes and calculations for calculating volume.<br>• I can interpret unnumbered graduations on a variety of scales.<br>• **I can show an awareness of imperial units used in everyday life, for example, miles or stones.** | • I can convert between related units to efficiently solve problems.<br>• **I can use the comparative size of familiar objects to make reasonable estimations of length, mass, area and capacity.**<br>• **I can estimate to the nearest appropriate unit, then measures accurately: length, height and distance in millimetres (mm), centimetres (cm), metres (m) and kilometres (km); mass in grams (g) and kilograms (kg); and capacity in millilitres (ml) and litres (l). (Note: measuring accurately including using decimals and fractional parts.)**<br>• **I can calculate the perimeter of simple straight sided 2D shapes in millimetres (mm), centimetres (cm) and metres (m).**<br>• **I can calculate the area of squares, rectangles and right-angled triangles in square millimetres (mm2) square centimetres (cm2) and square metres (m2).**<br>• **I can calculate the volume of cubes and cuboids in cubic centimetres (cm3) and cubic metres (m3).**<br>• **I can convert between common units of measurement using decimal notation, for example, 550 cm = 5·5 m; 3·009 kg = 3009 g.**<br>• **I can choose the most appropriate measuring device for a given task and carries out the required calculation, recording results in the correct unit.**<br>• **I can read a variety of scales accurately.**<br>• **I can draw squares and rectangles accurately with a given perimeter or area.**<br>• **I can demonstrate understanding of the conservation of measurement, for example, draw three different rectangles each with an area of 24 cm2.** |

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| | | **Mathematics – its impact on the world, past, present and future:** | | | | | | | |
| **Number and Number Processes (NNP)** | **Mathematics – its impact on the world, past, present and future** | | | • There is a great deal of opportunity for learner choice and linking to other curricular areas (see progression pathway for suggestions). | • There is a great deal of opportunity for learner choice and linking to other curricular areas (see progression pathway for suggestions). | • **Investigates and shares understanding of the importance of numbers in learning, life and work.**<br>• **Investigates and shares understanding of a variety of number systems used throughout history.** | • There is a great deal of opportunity for learner choice and linking to other curricular areas (see progression pathway for suggestions). | • There is a great deal of opportunity for learner choice and linking to other curricular areas (see progression pathway for suggestions). | • **Researches and presents examples of the impact mathematics has in the world of life and work.**<br>• **Contributes to discussions and activities on the role of mathematics in the creation of important inventions, now and in the past.** |

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| | | **Expressions and Equations:** | | | | | | | |
| **Number and Number Processes (NNP)** | **Expressions and Equations** | | | • (Addition and Subtraction) Within 20<br>• Investigate a variety of numerical expressions using pictures or symbols as minuends and subtrahends.<br>• Use the vocabulary 'equal' and 'not equal' when discussing number relationships.<br>• Understand that ≠ means 'not equal to' or 'not the same as'.<br>• Use the correct symbol (= , ≠) to make number relationships. | • (Addition and Subtraction) Within 100:<br>• Investigate a variety of numerical expressions using pictures or symbols as minuends and subtrahends<br>• Use the vocabulary 'equal' 'not equal', 'greater than', 'less than' when discussing number relationships.<br>• Understand that < and > means 'greater than' and 'less than'.<br>• Use the correct symbol (= , ≠, < and >) to make number relationships. | (Addition and Subtraction) Within 1000<br>• I have Investigated a variety of numerical expressions using pictures or symbols as minuends and subtrahends<br><br>(Multiplication and Division)<br>• I can use my known multiplication facts (2, 3, 4, 5 and 10) to investigate a variety of numerical expressions using pictures or symbols as multiplicands and multipliers. e.g. ◆ x 4 = 24 and 4 x ◆ = 24<br><br>• **I understand and can accurately use the terms 'equal to', 'not equal to', 'less than', 'greater than', and the related symbols (=, ≠ , <, >) when comparing quantities.**<br>• **I can apply an understanding of the equals sign as a balance, and knowledge of number facts, to solve simple algebraic problems where a picture or symbol is used to represent a number, for example, ◆ + 17 = 30 and ◆ × 6 = 30.** | • I am continuing to investigate a variety of numerical expressions using pictures or symbols as minuends and subtrahends<br>• I am continuing to use my known multiplication facts to investigate a variety of numerical expressions using pictures or symbols as multiplicands and multipliers. e.g. ◆ x 4 = 24 and 4 x ◆ = 24 | • I am beginning to use letters in a variety of numerical expressions for missing minuends and subtrahends<br>• I am beginning to use letters in a variety of numerical expressions for missing multiplicands and multipliers. e.g. ◆ x 4 = 24 and 4 x ◆ = 24 | • **I can solve simple algebraic equations with one variable, for example, a - 30 = 40 and 4b = 20.** |

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| | | **Patterns and Relationships:** | | | | | | | |
| **Number and Number Processes (NNP)** | **Patterns and Relationships** | • I can begin to notice and explore pattern in the environment.<br>• I can begin to notice groupings and patterns in stories and songs.<br>• I can find and match pairs. | • I can group and sort objects by a variety of criteria.<br>• I can recognise, discuss copy and create simple AB patterns in colour, size, shape, number etc.<br>• I can classify and sort familiar objects or numbers into groups by a variety of criteria<br>• **I can copy, continue and creates simple patterns involving objects, shapes and numbers.**<br>• **I can explore, recognises and continues simple number patterns.**<br>• **I can find missing numbers on a number line within the range 0 - 20.** | • I can describe, continue and create number sequences and patterns within 20<br>• I understand using my known multiplication facts (2 and 10) that the next number in a sequence of multiples is adding that multiple and the number before is removing one multiple<br>• I can describe, continue, and create repeating patterns involving shapes, pictures and symbols | • I can describe, continue and create number sequences and patterns within 100<br>• I understand using my known multiplication facts (2, 5 and 10) that the next number in a sequence of multiples is adding that multiple and the number before is removing one multiple | • **I can count forwards and backwards in 2s, 5s and 10s from any whole number up to 1000.**<br>• **I can describe patterns in number, for example, in the multiplication tables and hundred square.**<br>• **I can continue and creates repeating patterns involving shapes, pictures and symbols.**<br>• **I can describe, continue and create number patterns using addition, subtraction, doubling, halving, counting in jumps (skip counting) and known multiples.** | • I can identify a simple number pattern involving one operation (increasing/ decreasing) and complete a table of values and describe the pattern in words. | • I can determine the rule (known as 'generalisation') that describes the pattern from a table of results and use this rule to calculate the corresponding value for a larger number. | • **I can explain and use a rule to extend well known number sequences including square numbers, triangular numbers and Fibonacci sequence.**<br>• **I can apply knowledge of multiples, square numbers and triangular numbers to generate number patterns.** |
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| | | **Phase 1 – Prerequisite** | **Phase 1** | **Phase 2** | **Phase 3** | **Phase 4** | **Phase 5** | **Phase 6** | **Phase 7** |
| | | **Expression and Equations:** | | | | | | | |
| **Number and Number Processes (NNP)** | **Expression and Equations** | | | • (Addition and Subtraction) Within 20<br>• Investigate a variety of numerical expressions using pictures or symbols as minuends and subtrahends.<br>• Use the vocabulary 'equal' and 'not equal' when discussing number relationships.<br>• Understand that ≠ means 'not equal to' or 'not the same as'.<br>• Use the correct symbol (= , ≠) to make number relationships. | • (Addition and Subtraction) Within 100:<br>• Investigate a variety of numerical expressions using pictures or symbols as minuends and subtrahends<br>• Use the vocabulary 'equal' 'not equal', 'greater than', 'less than' when discussing number relationships.<br>• Understand that < and > means 'greater than' and 'less than'.<br>• Use the correct symbol (= , ≠, < and >) to make number relationships. | (Addition and Subtraction) Within 1000<br>• I have Investigated a variety of numerical expressions using pictures or symbols as minuends and subtrahends<br><br>(Multiplication and Division)<br>• I can use my known multiplication facts (2, 3, 4, 5 and 10) to investigate a variety of numerical expressions using pictures or symbols as multiplicands and multipliers. e.g. ◆ x 4 = 24 and 4 x ◆ = 24<br><br>• **I understand and can accurately use the terms 'equal to', 'not equal to', 'less than', 'greater than', and the related symbols (=, ≠ , <, >) when comparing quantities.**<br>• **I can apply an understanding of the equals sign as a balance, and knowledge of number facts, to solve simple algebraic problems where a picture or symbol is used to represent a number, for example, ◆ + 17 = 30 and ◆ × 6 = 30.** | • I am continuing to investigate a variety of numerical expressions using pictures or symbols as minuends and subtrahends<br>• I am continuing to use my known multiplication facts to investigate a variety of numerical expressions using pictures or symbols as multiplicands and multipliers. e.g. ◆ x 4 = 24 and 4 x ◆ = 24 | • I am beginning to use letters in a variety of numerical expressions for missing minuends and subtrahends<br>• I am beginning to use letters in a variety of numerical expressions for missing multiplicands and multipliers. e.g. ◆ x 4 = 24 and 4 x ◆ = 24 | • **I can solve simple algebraic equations with one variable, for example, a - 30 = 40 and 4b = 20.** |