| | **YEAR 4 medium term plan 2022-2023**<br><br>Previous Yr 3 non-negotiable objectives in pink<br><br>Objectives highlighted in yellow are 'Ready to Progress criteria' |
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| **Autumn 1** | **Number – Place Value**<br>Read and write numbers to at least 1000 in numerals and in words / Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)<br><br>•Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100 **(4NPV–1)**<br>•Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and nonstandard partitioning. **(4NPV–2)**<br>•count in multiples of 25 and 1000<br>•find 1000 more or less than a given number<br>•count backwards through zero to include negative numbers<br>•order and compare numbers beyond 1000<br>•identify, represent and estimate numbers using different representation<br>•Reason about the location of any 4-digit number in the linear number system, including identifying the previous and next multiple of 100 and 1000**(4NPV-3)**<br>•round any number to the nearest 10, 100 or 1000 **(4NPV-3)**<br>•read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value<br><br>**Number – Addition and Subtraction**<br>Add and subtract numbers mentally, including:- a three-digit number and / ones /- a three-digit number and tens /- a three-digit number and hundreds<br>Add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction<br><br>•add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate<br>•estimate and use inverse operations to check answers to a calculation<br>•solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why<br>•Solve number and practical problems that involve all of the above and with increasingly large positive numbers, number and place value |
| **Autumn 2** | **Measurement - Area**<br>•find the area of rectilinear shapes by counting squares<br><br>**Number- Multiplication and Division A**<br>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables<br>Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, progressing to efficient written methods |

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| | | •find the effect of multiplying and dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths **(4MD-1)**<br>•Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) **(4NF-3)**<br>•use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1;<br>•Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. **(4MD-2)**<br>•Understand and apply the distributive property of multiplication. **(4MD–3)**<br>•count in multiples of 6, 7, 9,<br>•recall multiplication and division facts for multiplication tables up to 12 × 12 6 TIMES TABLES, 7 TIMES TABLES, 9 TIMES TABLES **(4NF-1)**<br>•Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context. **(4NF–2)** |
| | **Spring 1** | **Number – Multiplication and Division B**<br>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables<br>Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, progressing to efficient written methods<br><br>•recall multiplication and division facts for multiplication tables up to 12 × 12 **(4NF-1)**<br>•multiplying together three numbers<br>•recognise and use factor pairs and commutativity in mental calculations<br>•multiply two-digit and three-digit numbers by a one-digit number using formal written layout<br>•divide two-digit and three-digit numbers by a one-digit number<br>•estimate and use inverse operations to check answers to a calculation<br>•solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects<br><br>**Measurement-Length and Perimeter**<br>Measure, add and subtract lengths (m/cm/mm<br>Measure the perimeter of simple 2-D shapes<br><br>•Convert between different units of measure, estimate, compare and calculate different measures, including money in pounds and pence<br>•measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres<br>•Solve simple perimeter and measure problems<br><br>**Number – Fractions**<br>Add and subtract fractions with the same denominator within one whole (e.g. 5/7 + 1/7 =6/7 )<br><br>•recognise and show, using diagrams, families of common equivalent fractions<br>•count up and down in hundredths;<br>•add fractions with the same denominator |

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| **Spring 2** | **Number-Fractions**<br>Add and subtract fractions with the same denominator within one whole<br>(e.g. 5/7 + 1/7 =6/7 )<br><br>•subtract fractions with the same denominator<br>•Reason about the location of mixed numbers in the linear number system. **(4F–1)**<br>•Convert mixed numbers to improper fractions and vice versa **(4F–2)**<br>•Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. **(4F–3)**<br>•solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number<br>•recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.<br>•recognise and write decimal equivalents of any number of tenths or hundredths<br>•find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths<br>•solve simple measure and money problems involving fractions and decimals to two decimal places<br>**Number – Decimals A**<br>Find the value of dividing 1 or 2 digit numbers by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths<br>Round decimals with one decimal place to the nearest whole number<br><br>•recognise and write decimal equivalents to ¼, ½ and ¾<br>•solve simple measure problems involving fractions and decimals to two decimal places | |
| **Summer 1** | **Number – Decimals B**<br>Find the value of dividing 1 or 2 digit numbers by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths<br>Round decimals with one decimal place to the nearest whole number<br><br>•round decimals with one decimal place to the nearest whole number<br>•compare numbers with the same number of decimal places up to two decimal places<br><br>**Measurement – Money and Time**<br>Add and subtract amounts of money to give change<br>Know the number of seconds in a minute and the number of days in each month, year and leap year<br>Compare durations of events, for example to calculate the time taken by particular events or tasks<br><br>•Convert between different units of measure-pounds and pence<br>•solve simple money problems involving fractions and decimals to two decimal places<br>•read, write and convert time between analogue and digital 12- and 24-hour clocks<br>•Convert between different units of measure (e.g. Hours to minutes)<br>•solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days<br>•solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why<br>•solve problems involving multiplying and adding | |

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| **Summer 2** | **Geometry-Properties of Shape**<br>Identify horizontal, vertical, perpendicular and parallel lines in relation to other lines<br><br>•compare and classify geometric shapes, including quadrilaterals and triangles, based on properties and sizes. Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. **(4G-2)**<br>•identify acute and obtuse angles and compare and order angles up to two right angles by size<br>•Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. **(4G–1)**<br>•Find the perimeter of regular and irregular polygons (4G–2)<br>•identify lines of symmetry in 2-D shapes presented in different orientations **(4G-3)**<br>•complete a simple symmetric figure with respect to a specific line of symmetry **(4G-3)**<br><br>**Statistics**<br>•interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs<br>•solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs<br><br>**Geometry- Position and Direction**<br>Identify horizontal, vertical, perpendicular and parallel lines in relation to other lines<br>•describe positions on a 2-D grid as coordinates in the first quadrant<br>•plot specified points and draw sides to complete a given polygon<br>•describe movements between positions as translations of a given unit to the left/right and up/down |
| **Continuous Objectives**<br>**The continuous objectives are woven into the teaching continually during the year.**<br>**Children are given continual and regular opportunities to apply their knowledge to problem solving and reasoning.** | **Solve number and practical problems that involve all of the above and with increasingly large positive numbers, number and place value**<br>**•estimate and use inverse operations to check answers to a calculation**<br>**•solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why**<br>**•solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects**<br>**•solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number**<br>**•solve simple measure and money problems involving fractions and decimals to two decimal places**<br>**•solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days** |

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| **Key Basic skills to be taught continuously through the year** | **Count from zero in multiples of 6, 7, 9, 25 and 1000 using bridging strategies as appropriate**<br>**Use knowledge of complements to 100 to find change from whole pounds**<br>**Use knowledge of complements to 60 to calculate time within an hour**<br>**Recall multiplication facts and related division facts for tables up to 12 x 12**<br>**Read and write numbers up to 10 000 and recognise the place value of each digit**<br>**Recognise the place value of each digit in a four-digit number**<br>**Compare and order numbers up to 10 000**<br>**Partition numbers into place value columns**<br>**Partition numbers in different ways**<br>**Round any four-digit number to the nearest 10, 100 and 1000**<br>**Use rounding to support estimation and calculation**<br>**Use knowledge of place value to derive new addition and subtraction facts**<br>**Use knowledge of inverse to derive associated addition and subtraction facts and check answers**<br>**Double any number between 1 and 100 and find all corresponding halves**<br>**Add and subtract mentally THTU ± U, THTU ± T, THTU ± H, TU ± TU and HTU ±TU**<br>**Multiply numbers including decimals by 10 and 100**<br>**Divide decimal numbers (to one decimal place) by 10**<br>**Divide four–digit whole numbers by 100**<br>**Use knowledge of inverse to derive associated multiplication and division facts**<br>**Use known facts to derive new facts**<br>**Use known facts to derive equivalent facts**<br>**Count up and down in tenths and hundredths and recognise the equivalent decimal values**<br>**Recall fraction and decimal pairs to 1**<br>**Identify fractions greater or less than a half**<br>**Identify equivalent fractions**<br>**Order, add and subtract fractions with the same denominator**<br>**Recognise decimal equivalents of fractions with a denominator of ten and one hundred and also decimal equivalents of half, one quarter and three quarters**<br>**Round decimals with one decimal place to the nearest whole number**<br>**Tell and write the time from a 12-hour analogue clock and a clock with Roman numerals and a digital clock display**<br>**Read, tell and write the time from a 24-hour clock**<br>**Convert between 12 and 24-hour clocks**<br>**Convert between money and measures including time**<br>**Recognise right angles, straight angles, half and full turns and relate the turn to a measurement in degrees**<br>**Identify different types of angles including acute and obtuse** |