



YEAR 4 medium term plan

Previous Yr 3 non-negotiable objectives in pink

Objectives highlighted in yellow are 'Ready to Progress criteria'

Autumn 1

Number – Place Value

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)

• 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)

• 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)

• count in multiples of 25 and 1000

• find 1000 more or less than a given number

• count backwards through zero to include negative numbers

• order and compare numbers beyond 1000

• identify, represent and estimate numbers using different representation

• 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)

• round any number to the nearest 10, 100 or 1000 (4NPV-3)

• 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

Number – Addition and Subtraction

Add and subtract numbers mentally, including:- a three-digit number and / ones /- a three-digit number and tens /- a three-digit number and hundreds

Add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction

• add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate

• estimate and use inverse operations to check answers to a calculation

• solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

• 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

• find the area of rectilinear shapes by counting squares

Number- Multiplication and Division A

Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables

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

	•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) •Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) (4NF-3) •use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; •Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. (4MD-2) •Understand and apply the distributive property of multiplication. (4MD-3) •count in multiples of 6, 7, 9, •recall multiplication and division facts for multiplication tables up to 12×12 6 TIMES TABLES, 7 TIMES TABLES, 9 TIMES TABLES (4NF-1) •Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context. (4NF-2)
<u>Spring 1</u>	<u>Number – Multiplication and Division B</u> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables 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 •recall multiplication and division facts for multiplication tables up to 12×12 (4NF-1) •multiplying together three numbers •recognise and use factor pairs and commutativity in mental calculations •multiply two-digit and three-digit numbers by a one-digit number using formal written layout •divide two-digit and three-digit numbers by a one-digit number •estimate and use inverse operations to check answers to a calculation •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 <u>Measurement-Length and Perimeter</u> Measure, add and subtract lengths (m/cm/mm) Measure the perimeter of simple 2-D shapes •Convert between different units of measure, estimate, compare and calculate different measures, including money in pounds and pence •measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres •Solve simple perimeter and measure problems <u>Number – Fractions</u> Add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$) •recognise and show, using diagrams, families of common equivalent fractions •count up and down in hundredths; •add fractions with the same denominator

Spring 2

Number-Fractions

Add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$)

- subtract fractions with the same denominator
- Reason about the location of mixed numbers in the linear number system. (4F–1)
- Convert mixed numbers to improper fractions and vice versa (4F–2)
- Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. (4F–3)
- 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
- recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- recognise and write decimal equivalents of any number of tenths or hundredths
- 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
- solve simple measure and money problems involving fractions and decimals to two decimal places

Number – Decimals A

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

Round decimals with one decimal place to the nearest whole number

- recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$
- solve simple measure problems involving fractions and decimals to two decimal places

Summer 1

Number – Decimals B

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

Round decimals with one decimal place to the nearest whole number

- round decimals with one decimal place to the nearest whole number
- compare numbers with the same number of decimal places up to two decimal places

Measurement – Money and Time

Add and subtract amounts of money to give change

Know the number of seconds in a minute and the number of days in each month, year and leap year

Compare durations of events, for example to calculate the time taken by particular events or tasks

- Convert between different units of measure-pounds and pence
- solve simple money problems involving fractions and decimals to two decimal places
- read, write and convert time between analogue and digital 12- and 24-hour clocks
- Convert between different units of measure (e.g. Hours to minutes)
- solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days
- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why
- solve problems involving multiplying and adding

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

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