# Year Group

# YEAR 4 2023-2024

Objectives highlighted in yellow are 'Ready to Progress criteria' – children need to be secure on these before moving on

PROBLEM SOLVING AND REASONING MUST BE INCORPORATED INTO ALL TOPICS FOR ALL CHILDREN.

## Autumn 1

#### Number – Place Value

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

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)

Count in multiples of 1000

Find 1000 more or less than a given number

Order and compare numbers beyond 1000

Identify, represent and estimate numbers using different representation

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

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

Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. (4NPV-4)

Solve number and practical problems that involve all of the above and with increasingly large positive numbers, number and place value

#### Number - 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

#### **Measurement- Area**

Find the area of rectilinear shapes by counting squares

### Autumn 2

#### **Number- Multiplication and Division**

Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. (4MD-2)

Recall multiplication and division facts for multiplication tables up to  $12 \times 12$ 

#### (4NF-1) Count in multiples of 6, 7 and 9

Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1;

Multiply together 3 numbers

Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context. (4NF-2)

Apply place-value knowledge to known additive and multiplicative number facts (scaling facts)

Count in multiples of 25

by 100) (4NF-3)

Recognise and use factor pairs and commutativity in mental calculations Recall multiplication and division facts for multiplication tables up to  $12\times12$ 

Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 (Y5) 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)

Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects

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)

#### Spring 1 Number- Multiplication and Division

Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout Divide 2-digit and 3-digit numbers by a 1-digit: Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers

#### Measurement-Length and Perimeter

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

Find the perimeter of regular and irregular polygons4G-2

Solve simple perimeter and measure problems

#### **Spring 2** Measurement – Time

Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days

Read, write and convert time between analogue and digital 12- and 24-hour clocks

#### **Number – Fractions**

Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators (Y3)

Recognise and show, using diagrams, families of common equivalent fractions Count up and down in hundredths;

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 fractions with the same denominator

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

#### **Number - Decimals**

Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10 (Y3)

Recognise and write decimal equivalents of any number of tenths or hundredths
Compare numbers with the same number of decimal places up to 2 decimal places
Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the
digits in the answer as ones, tenths and hundredths

#### Summer 1

#### **Number - Decimals**

Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10  $\,$ 

Recognise and show, using diagrams, families of common equivalent fractions

Recognise and write decimal equivalents of any number of tenths or hundredths Solve simple measure and money problems involving fractions and decimals to 2 decimal places

Compare numbers with the same number of decimal places up to 2 decimal places Round decimals with 1 decimal place to the nearest whole number

Recognise and write decimal equivalents to 1/4, 1/2 and 3/4

#### Measurement – Money

Estimate, compare and calculate different measures, including money in pounds and pence

#### Summer 2

#### **Geometry – Shape and Position and Direction**

Identify acute and obtuse angles and compare and order angles up to 2 right angles by size Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes -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

#### **Statistics**

Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs

Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and line graphs

Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

#### **Position and Direction**

Describe positions on a 2-D grid as coordinates in the first quadrant -4G-1

Describe movements between positions as translations of a given unit to the left/right and up/down — 4G-1

Plot specified points and draw sides to complete a given polygon – 4G-1

# Continuous objectives

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.

Solve number and practical problems that involve all of the above and with increasingly large positive numbers, number and place value

- •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

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 x 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 THTU  $\pm$  U, THTU  $\pm$  T, THTU  $\pm$  H, TU  $\pm$  TU and HTU  $\pm$  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