

AUTUMN – YEAR 4		
<b>NATIONAL CURRICULUM</b> <b>NUMBER - NUMBER AND PLACE VALUE</b> Count in multiples of 6, 7, 9, 25 and 1000 (A1, A4)  Identify, represent and estimate numbers using different representations (A1)  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 (A1)  Find 1000 more or less than a given number (A1)  Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) (A1)  Order and compare numbers beyond 1000 (A1)  Round any number to the nearest 10, 100 or 1000 (A1)  Solve number and practical problems that involve all of the above and with increasingly large positive numbers (A1)  <b>NUMBER - ADDITION AND SUBTRACTION</b> Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate (A2)  Solve addition and subtraction twostep problems in contexts, deciding which operations and methods to use and why (A2)	<b>NUMBER – MULTIPLICATION AND DIVISION</b> Recall multiplication and division facts for multiplication tables up to $12 \times 12$ (A4, Sp1)  Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers (A4, Sp1)  Recognise and use factor pairs and commutativity in mental calculations (A4, Sp1)  <b>MEASUREMENT</b> Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres (A3, Sp2)  Find the area of rectilinear shapes by counting squares (A3, Sp2)	<b>READY TO PROGRESS</b> <b>NUMBER AND PLACE VALUE - NPV</b> 4NPV-1 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 (A1 Step 4)  4NPV-2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning (A1 )  4NPV-3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each (A1 Steps 8 – 17)  4NPV-4 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 (A1 Steps 9, 10) <b>NUMBER FACTS - NF</b> 4NF-1 Recall multiplication and division facts up to $12 \times 12$ and recognise products in multiplication tables as multiples of the corresponding number (A4 , all steps)  4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context (A4 , all steps) <b>ADDITION AND SUBTRACTION - AS</b>  <b>MULTIPLICATION AND DIVISION – MD</b> 4MD-2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication (A4 , all steps)



## SPRING – YEAR 4

### NATIONAL CURRICULUM

#### NUMBER – MULTIPLICATION AND DIVISION

Recall multiplication and division facts for multiplication tables up to  $12 \times 12$  (A4, Sp1)

Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers (A4, Sp1)

Recognise and use factor pairs and commutativity in mental calculations (A4, Sp1)

Multiply two-digit and three-digit numbers by a one-digit number using formal written layout (Sp1)

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 (Sp1)

*Pupils practise to become fluent in the formal written method of short multiplication and short division (Non-statutory NC guidance, not covered in WR – use NCETM guidance)*

#### NUMBER - FRACTIONS

Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten (Sp4, Su1)

Recognise and show, using diagrams, families of common equivalent fractions (Sp3)

Add and subtract fractions with the same denominator (Sp3)

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 (Sp3)

Recognise and write decimal equivalents of any number of tenths or hundredths (Sp4, Su1)

Recognise and write decimal equivalents to  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$  (Sp4, Su1)

Round decimals with one decimal place to the nearest whole number (Sp4, Su1)

Compare numbers with the same number of decimal places up to two decimal places (Sp4, Su1)

Solve simple measure and money problems involving fractions and decimals to two decimal places (Sp3, Sp4, Su1)

#### MEASUREMENT

Convert between different units of measure [for example, kilometre to metre; hour to minute] (Sp2, Su3)

Estimate, compare and calculate different measures (Sp2, Su3)

Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres (A3, Sp2)

Find the area of rectilinear shapes by counting squares (A3, Sp2)

### READY TO PROGRESS

#### NUMBER AND PLACE VALUE - NPV

4NPV-1 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 (Sp1 Steps 3, 4, 5, 6)

### NUMBER FACTS - NF

4NF-1 Recall multiplication and division facts up to  $12 \times 12$  and recognise products in multiplication tables as multiples of the corresponding number (Sp1 Steps 1, 2, 7, 8, 9, 10)

4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context (Sp1 Steps 11, 12, 12)

4NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) (Sp1 Steps 4, 6 / Sp4 step 10)

### MULTIPLICATION AND DIVISION – MD

4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size (Sp1 Steps 3, 4, 5, 6)

### FRACTIONS

4F-1 Reason about the location of mixed numbers in the linear number system (Sp3 Steps 4, 5)

4F-2 Convert mixed numbers to improper fractions and vice versa (Sp3 Steps 7, 8)

4F-3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers (Sp3 Steps 12, 14, 15)

### GEOMETRY – G

4G-2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons (Sp2 Steps 8, 9)

## SUMMER – YEAR 4

### NATIONAL CURRICULUM

#### NUMBER - FRACTIONS

Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten (Sp4, Su1)

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 (Sp3)

Recognise and write decimal equivalents of any number of tenths or hundredths (Sp4, Su1)

Recognise and write decimal equivalents to  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$  (Sp4, Su1)

Round decimals with one decimal place to the nearest whole number (Sp4, Su1)

Compare numbers with the same number of decimal places up to two decimal places (Sp4, Su1)

Solve simple measure and money problems involving fractions and decimals to two decimal places (Sp3, Sp4, Su1)

#### MEASUREMENT

Convert between different units of measure [for example, kilometre to metre; hour to minute] (Sp2, Su3)

Estimate, compare and calculate different measures (Sp2, Su3)

Estimate, compare and calculate different measures, including money in pounds and pence (Su2)

Read, write and convert time between analogue and digital 12- and 24-hour clocks (Su3)

Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (Su3)

#### GEOMETRY – PROPERTIES OF SHAPES

Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes (Su4)

Identify lines of symmetry in 2-D shapes presented in different orientations (Su4)

Identify acute and obtuse angles and compare and order angles up to two right angles by size (Su4)

Identify lines of symmetry in 2-D shapes presented in different orientations (Su4)

Complete a simple symmetric figure with respect to a specific line of symmetry (Su4)

Describe positions on a 2-D grid as coordinates in the first quadrant (Su6)

Describe movements between positions as translations of a given unit to the left/right and up/down (Su6)

Plot specified points and draw sides to complete a given polygon (Su6)

#### STATISTICS

Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs (Su5)  
Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs (Su5)

### READY TO PROGRESS

#### GEOMETRY – G

4G-1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant (Su4 steps to follow)

4G-2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons (Su4 steps to follow)

4G-3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry (Su4 steps to follow)