| Expected for the Autumn Term (EXS) | Expected for the Spring Term (EXS) <br> (Greater Depth in the Autumn Term) | Expected for the Summer Term (EXS) <br> (Greater Depth in the Spring Term) | Greater Depth in the Summer Term (GDS) |  |
| :---: | :---: | :---: | :---: | :---: |
| $25 \%$ (7 or more) of objectives secure 7 must be number. | $50 \%$ (14 or more) of objectives secure A significant quantity of which are number. | 75\% (21 or more) of objectives secure A significant number of which are number and all 'Ready to Progress' criteria are highlighted | 95\% (27) of objectives are secure. Many aspects are embedded and rapid. There is consistent ability to apply in range of contexts at depth with high level reasoning. |  |
| Children working within the correct year group objectives but not in the above criteria are 'working towards standard' (WTS) Children working within a different year group objectives are 'below' (BLW) <br> Children working within a different key stages objectives or 'pre-key stage' (PKS) except where they are in Y 3 working at Y 2 which will be termed as BLW. |  |  |  |  |
| Number and Place Value |  |  |  |  |
| Identify one more and one less than a number to 10. |  |  |  | LS2 |
| Order and compare consecutive numbers within 10. |  |  |  | LS3 |
| Read and write numbers from 1 to 20 in numerals and words |  |  |  | LS4 LS27 |
| Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least using numbers to 20 recognising the place value of tens and ones. |  |  |  | LS2 LS4 LS27 LS28 |
| Reason about the location of numbers to 20 within the linear number system, including comparing using < > and = NPV |  |  |  | LS4, LS6, LS27, LS28 |
| Count within 100, forwards and backwards, starting with any number. NPV |  |  |  | Weekly (specifically LS2, LS9, LS15, LS21, LS24, LS27, |
| Count, read and write numbers to 100 in numerals; recognising place value of two digit numbers. |  |  |  | LS15 LS25 LS27 |
| Count forwards and backwards in multiples of 2,5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers NF |  |  |  | LS14, LS15, LS16, LS17, LS18 |
| Addition and Subtraction |  |  |  |  |
| Develop fluency in addition and subtraction facts within 10 NF |  |  |  | $\begin{aligned} & \hline \text { LS2, LS4, LS6, LS7, LS8, LS11, } \\ & \text { LS12 } \end{aligned}$ |
| Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. AS |  |  |  | LS7, LS2, LS4, LS12 Mastering number. |
| Recognise odd and even numbers when representing and using number bonds and related subtraction facts within 20 |  |  |  | LS12 |
| Represent and use number bonds, addition and related subtraction facts within 20 |  |  |  | LS6 LS7 LS28 |
| Read, write and interpret equations containing addition ( + ), subtraction ( - ) and equals ( $=$ ) symbols, and relate additive expressions and equations to real-life contexts. |  |  |  | LS8 LS28 |
| Add one-digit and two-digit numbers to 20, including zero using regrouping where necessary. |  |  |  | LS11 LS28 |
| Subtract one-digit and two-digit numbers to 20, including zero using regrouping where necessary. |  |  |  | LS11 LS28 |
| Find difference as subtraction within numbers to 20 using practical equipment and representations. |  |  |  | LS7, LS12 |
| Solve one-step problems that involve addition, using concrete objects and pictorial representations, and missing number problems. |  |  |  | LS13 LS21 LS28 |
| Solve one-step problems that involve subtraction, using concrete objects and pictorial representations, and missing number problems, |  |  |  | LS13 LS21 LS28 |
| Multiplication and Division |  |  |  |  |
| Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher: <br> - Using arrays <br> - Dividing using sharing and grouping <br> - Problem solving and scaling <br> - Making doubles and finding halves <br> - Using repeated addition |  |  |  | $\begin{array}{\|l\|l} \hline \text { LS14 } \\ \text { LS15 } \\ \text { LS16 } \\ \text { LS17 } \\ \text { LS18 } \\ \text { LS21 } \\ \hline \text { SS28 } \end{array}$ |
| Fractions |  |  |  |  |
| Recognise, find and name a half as one of two equal parts of an object, shape or quantity and a quarter as one of four equal parts of an object, shape or quantity |  |  |  | LS20 LS26 |
| Measurement |  |  |  |  |
| Recognise and use language relating to dates, including days of the week, weeks, months and years |  |  |  | LS5 |
| Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half) |  |  |  | LS9 LS24 |
| Compare, describe and solve practical problems for mass / weight (for example, heavy/light, heavier than, lighter than) |  |  |  | LS9 LS24 |
| Measure and begin to record the following: ॰lengths and heights •mass/weight• Capacity/volume |  |  |  | LS9 LS24 |
| Recognise and know the value of different denominations of coins and notes |  |  |  | LS19 LS27 |
| Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times |  |  |  | LS22 LS23 |
| Properties of Shape |  |  |  |  |
| Describe position, direction and movement, including whole, half, quarter and three-quarter turns |  |  |  | LS1 LS22 LS23 |
| Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles (incl squares), triangles, cuboids and pyramids are not always similar to one another. G |  |  |  | LS10 LS26 |

## Expected for the

Autumn Term (EXS)
$25 \%$ (13 or more) of objectives secure
13 must be number.

| Expected for the Spring <br> Term (EXS) | Expected for the Summer Term (EXS) <br> (Greater Depth in the Spring Term) |
| :--- | :--- |
| (Greater Depth in the Autumn |  |
| Term) |  |

$75 \%$ (39 or more) of objectives secure
A significant number of which are number. All 'Ready to Progress' criteria must be highlighted (bold and underlined) and all end of key stage one eacher assessment framework expectations must be highlighted (in red).
Where children meet red criteria but don't have 75\% they must be moderated in school.

## Greater Depth in the Summer Term (GDS)

$95 \%$ (49) of objectives are secure. Many aspects are embedded and rapid. There is consistent ability to apply in range of contexts at depth with high level reasoning

Green greater depth criteria must be highlighted.
Children working within the correct year group objectives but not in the above criteria are 'working towards standard' (WTS) Children working within a different year group objectives are 'below' (BLW)
Children working within a different key stages objectives or 'pre-key stage' (PKS) except where they are in Y3 working at Y2 which will be termed as BLW

Number and Place Value


Read and write numbers to at least 100 in numerals and in words
Reason about the location of any twodigit number in the linear number system, including identifying the previous and next multiple of 10 NPV
Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, east
Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and nonstandard partitioning. NPV
Compare and order numbers from 0 up to 100; use $<,>$ and $=$ signs
count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward
Use place value and number facts to solve problems

## Addition and Subtraction

Secure fluency in addition and subtraction facts within 10, through continued practice. AS
Recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20 , recognising other associated additive relationships (e.g. If $7+3=$
10 , then $17+3=20$; if $7-3=4$, then $17-3=14$; leading to if $14+3=17$, then $3+14=17,17-14=3$ and $17-3=14$ )
Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 .
Recognise and use the inverse relationship between addition and subtraction recognising that addition can be done in any order (commutivity) and subtraction cannot not, using this to check calculations and solve problems.
add and subtract numbers using concrete objects, pictorial representations, and mentally, including: adding 31 digit numbers
Add and subtract across 10. AS
Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: -a two-digit number and ones (including bridging ten)
Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: -a two-digit number and tens (including bridging ten)
Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number AS
Add and Subtract numbers using concrete objects, pictorial representations, and mentally, including: -2 two-digit numbers. (including bridging ten) explaining their reasoning verbally or using apparatus
Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two digit numbers.
Add and subtract number using concrete objects, pictorial representations and mentally Using doubles and near doubles
Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?". AS
Add and subtract number using concrete objects, pictorial representations and mentally using and solving rebalancing equations
Solve problems with addition and subtraction: -using concrete objects and pictorial representations, including those involving numbers, quantities and measures
Solve problems with addition and subtraction applying their increasing knowledge of mental and written methods
use reasoning about numbers and relationships to solve more complex problems and explain their thinking (e.g. $29+17=15+4+$; 'together Jack and Sam have £14. Jack has $£ 2$ more than Sam. How much money does Sam have?' etc.)
solve unfamiliar word problems that involve more than one step (e.g. 'which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet?')

Read scales in divisions of $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10s
Multiplication and Division
read scales* where not all numbers on the scale are given and estimate points in
between
Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers Recall multiplication and division facts for 2,5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary recall and use multiplication and division facts for 2, 5 and 10 and make deductions
outside known multiplication facts
Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2,5 and 10 multiplication tables
Calculate mathematical statements for division within the multiplication tables and write them using the division ( $\div$ ) and equals (=) signs using division by grouping and shar

find different combinations of coins that equal the same amounts of money $\quad$ LS19 LS4
recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value

| Expected for the Autumn Term (EXS) | Expected for the Spring Term (EXS) <br> (Greater Depth in the Autumn Term) | Expected for the Summer Term (EXS) <br> (Greater Depth in the Spring Term) | Greater Depth in the Summer Term (GDS) |
| :---: | :---: | :---: | :---: |
| $25 \%$ (13 or more) of objectives secure 13 must be number. | $50 \%$ (26 or more) of objectives secure <br> A significant quantity of which are number. | $75 \%$ (38 or more) of objectives secure <br> A significant number of which are number and all 'Ready to Progress' criteria are highlighted | $95 \%$ (48) of objectives are secure. <br> Many aspects are embedded and rapid. There is consistent ability to apply in range of contexts at depth with high level reasoning. <br> (Total objectives 51) |
| Children working within the correct year group objectives but not in the above criteria a 'working towards standard' (WTS) Children working within a different year group objectives or 'below' (BLW) <br> Children working within a different key stages objectives or 'pre-key stage' (PKS) except where they are in Y3 working at Y2 which will be termed as BLW. |  |  |  |
| Number and Place Value |  |  |  |
| I can count forwards and backwards in multiples of 2, 3, 5, 10, 20, 4, 8, 50 and 100. |  |  |  |
| I can recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) and recognise 1,000. |  |  |  |
| I can compose and decompose 3-digit numbers using standard and non-standard partitioning. |  |  |  |
| I know 10 tens are equivalent to 1 hundred, and that 100 is 10 times bigger than 10, and can apply this to identify how man 10s are in other 3-digit multiples of 10. |  |  |  |
| I can reason about the location of any 3-digit number, including identifying the previous and next multiple of 10 and 100. |  |  |  |
| I can divide 100 into 2, 4,5 and 10 equal parts, and read scales/ number lines marked in multiples of 100 with 2, 4,5 and 10 equal parts. |  |  |  |
| I understand the place value of tenths, can count up and down in tenths and understand that tenths are made by dividing a whole by ten. |  |  |  |
| I can read, write, compare and order numbers up to 1,000. |  |  |  |
| I can round to the nearest 10 or 100. |  |  |  |
| I can explore making numbers with the roman numerals I, X and V. |  |  |  |
| I can solve number problems and practical problems involving these ideas. |  |  |  |
| Addition and Subtraction |  |  |  |
| I have secure fluency in addition and subtraction facts that bridge 10. |  |  |  |
| I can apply place value knowledge to addition facts to scale by a factor of 10 e.g. $3+4=7 \mathrm{so} \mathrm{30+40=70}$. |  |  |  |
| I can calculate complements to 100. |  |  |  |
| I can add multiples of 1, 10 and 100 to 3-digit numbers. |  |  |  |
| I can add and subtract using the column methods for up to three-digit numbers. |  |  |  |
| I understand the inverse relationship between addition and subtraction and how they both relate to part whole models. |  |  |  |
| I understand that addition is commutative and subtraction facts can be derived from addition facts. |  |  |  |
| I can use inverse operations and understanding of commutativity to solve missing number addition and subtraction calculations. |  |  |  |
| I can use rounding/estimating to check answers to calculations. |  |  |  |
| I can solve problems, using number facts, place value, and more complex addition and subtraction |  |  |  |
| Multiplication and Division |  |  |  |
| I can recall multiplication and division facts for the 2,5,10,3,4 and 8 multiplication tables. |  |  |  |
| I can apply known multiplication and division facts to solve contextual problems with different structures e.g. $2 \times 7=7$ twos $=2$ sevens |  |  |  |
| I can apply place value knowledge to multiplication facts to scale by a factor of 10 e.g. $3 \times 4=12$ so $30 \times 40=120$. |  |  |  |
| I can multiply and divide a whole number by ten (some children will be able to do this to one decimal place). |  |  |  |
| I recognise commutativity and the inverse ( $3 \times 4=12$ and 12 $\div 4=3$ and that $30 \times 4=3 \times 4 \times 10)$. |  |  |  |
| I can multiply a 2-digit number by a 1-digit number using the column method or known number facts. |  |  |  |
| I can divide a 2-digit number by a 1-digit number, including calculations with remainders. |  |  |  |
| I can begin to use the vocabulary multiples and factors. |  |  |  |
| I can solve a variety of problems with the skills above, including: <br> - Partitioning •scaling problems (e.g. 4 times as high/8 times as long) • correspondence problems in which n objects are connected to m objects •function machines •balancing sums |  |  |  |

## Fractions \& Decimals

I can interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts (a set of objects or shape)
I can reason about the location of any fraction within 1 in the linear number system on a number line.
I can recognise and show, using diagrams, equivalent fractions with small denominators.
I can find unit fractions of quantities using known division facts e.g. $1 / 3$ of $12=12 \div 3$.
I can add and subtract fractions with the same denominator within one whole e.g. 5/7 + 1/7 = 6/7.
I can compare and order unit fractions, and fractions with the same denominators.
I can solve problems that involve all of the above.
Measurement
I can practically measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity ( $\mathrm{l} / \mathrm{ml}$ ).
I can add and subtract amounts of money to give change, using both $£$ and p practically.
I can estimate, tell and write the time from an analogue clock to the nearest minute, including using Roman numerals, 12-hour and 24-hour clocks.
I can practically record time; compare time in terms of seconds, minutes and hours; and use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight.
I know the number of seconds in a minute and the number of days in each month, year and leap year
I can compare durations of events e.g. to calculate the time taken by particular events or tasks.
I can measure the perimeter of simple 2-D shapes.

## Properties of Shape

## I can draw 2-D shapes by joining marked points.

I can recognise 3-D shapes in different orientations, describe their properties and make 3-D shapes using modelling materials.
I can recognise right angles as a property of shape or a description of a turn.
I can identify right angles in 2D shapes presented in different orientations and recognise that 2 right angles make a $1 / 2$ turn; 3 make $3 / 4$ of a turn and 4 make a complete turn. I can also identify whether angles are $><$ than a right angle. (acute and obtuse).
I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

## Statistics

I can interpret and present data using bar charts, pictograms and tables within a range of contexts.
I can solve one step and two step questions (e.g. How many more? How many less?) using information in scaled bar charts, pictograms and tables. (extend to comparison, sum and difference)

Expected for the Autumn Term (EXS)<br>$25 \%$ (14 or more) of objectives secure 14 must be number.

Expected for the Spring Term (EXS)
(Greater Depth in the Autumn Term)
$50 \%$ (28 or more) of objectives secure
A significant quantity of which are number

Expected for the Summer Term (EXS)
(Greater Depth in the Spring Term)
$75 \%$ (42 or more) of objectives secure
A significant number of which are number
and all 'Ready to Progress' criteria are highlighted

Greater Depth in the Summer Term (GDS)
$95 \%$ (54) of objectives are secure. Many aspects are embedded and rapid. There is consistent ability to apply in range of contexts at depth with high level reasoning. (Total objectives

Children working within the correct year group objectives but not in the above criteria a 'working towards standard' (WTS)
Children working within a different year group objectives or 'below' (BLW)
Children working within a different key stages objectives or 'pre-key stage' (PKS) except where they are in $Y 3$ working at Y 2 which will be termed as BLW.

## Number and Place Value

I can count forwards and backwards in multiples of $2,3,4,5,6,7,8,9,10,11,12,20,25,50,100$ and 1,000.
I can find 10, 100 and 1,000 more or less than a given number up to 10,000 .
I can count backwards through 0 to include negative numbers to -20 using a range of scales.
I can recognise the place value of each digit in a four-digit number ( $1,000 \mathrm{~s}, 100 \mathrm{~s}, 10 \mathrm{~s}$, and 1 s ) and recognise 10,000
I can compose and decompose 4-digit numbers using standard and non-standard partitioning.
I know 10 hundreds are equivalent to 1 thousand, and that 1000 is 10 times bigger than 100, and can apply this to identify how man 100s are in other 4-digit multiples of 100 .
I can reason about the location of any 4-digit number, including identifying the previous and next multiple of 100 and 1000.
I can divide 1000 into $2,4,5$ and 10 equal parts, and read scales/ number lines marked in multiples of 1000 with $2,4,5$ and 10 equal parts.
I can read, write, order and compare numbers up to 10,000 .
I can round any number to the nearest 10,100 or 1,000 .
I can solve number and practical problems that involve all of the above.
I can read Roman numerals to 100 ( I to C ) and know that the numeral system changed to include 0 and place value.
I understand, read and write the place value of tenths and hundredths, can count up and down in tenths and hundredths and understand that:

- Tenths are made by dividing a whole 10.
- Hundredths are made by dividing a whole by 100 or a tenth by 10 .

Addition and Subtraction
I can add and subtract numbers with up to 4 digit, using the column addition and subtraction where appropriate.
I can apply place value knowledge to addition facts to scale by a factor of 100 e.g. $3+4=7 \mathrm{so} 300+400=700$.
I can add multiples of $1,10,100$ and 1000 to 4 -digit numbers.
I can use rounding/estimating to check answers to calculations.
I can use the inverse operation to solve missing number calculations.
I can solve two-step addition \& subtraction problems, deciding which operations and methods to use and why.

## Multiplication and Division

I know my multiplication and division facts for the $1,2,3,4,5,6,7,8,9,10,11$ and 12 times tables recognising the relationship between factors, multiplies and product.
I can apply place value knowledge to multiplication facts to scale by a factor of 100 e.g. $3 \times 4=12$ so $300 \times 400=1200$.
I can multiply and divide a whole number by 10 and 100, including an answer to 1 or 2 decimal places, and understand this is the equivalent to 10 or 100 times the size.
I can identify multiples of numbers and factors of numbers.
I can express my understanding of multiplication and division equations, by applying the different commutative properties.
I can multiply 2 -digit and 3 -digit numbers by a 1 -digit number using formal written layout.
I can divide a 3 -digit number by a 1 -digit number using a formal written method, including remainders.
I can solve division problems with 2-digit numbers and 1-digit divisors the involve remainders and interpret remainder appropriately according to the context.
I can solve problems involving multiplying and adding, including:

- Partitioning to multiply two-digit numbers by 1 digit
- Scaling problems (e.g. 4 times as high/8 times as long)
- Correspondence problems such as n objects are connected to m objects and introduce ratio/relative sizes of 2 quantities. (e.g. 3 scoops of red paint to 1 scoop of white paint, if I had 6 scoops of red paint. How much white paint do I need? I need to make 16 scoops of pink paint. How much red and white do I need?)
- Function machines and balancing calculations $(3 \times 4=2 \times 6)$


## Fractions

I can recognise and show, using diagrams and number lines, families of common equivalent fractions
I can convert mixed numbers to improper fractions and vice versa.
I can reason about the location of mixed fraction within 1 in the linear number system on a number line.
I can solve problems using harder fractions (incl. non-unit fractions) to calculate quantities e.g. 3/8 of £24.
I can add and subtract improper fractions with the same denominators, including bridging whole numbers.
I can recognise and write decimal equivalents for tenths and hundredths.
I can recognise and write decimal equivalents to $1 / 4,1 / 2$ and $3 / 4$.
I can round decimals with 1 decimal place to the nearest whole number.
I can compare numbers with the same number of decimal places up to 2 decimal places.
I can solve simple measure and money problems involving fractions and decimals to 2 decimal places.

## Measurement

I can practically measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) money (£/p)
I can convert between different units of measure [for example, cm to m , hour to minute mm to $\mathrm{cm}, £ / \mathrm{p}$ ]
I can measure and calculate the perimeter of regular and irregular polygons.
I can find the area of rectangular shapes by counting squares
I can estimate, compare and calculate different measures, including money in pounds and pence
I can read, write and convert time between analogue and digital 12- and 24-hour clocks
I can solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days
Properties of Shape
Ican identify regular polygons, including equilateral triangles and squares, as those with equal side-lengths and equal angles.
I can compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
I can identify acute and obtuse angles and compare and order angles up to 2 right angles by size
I can identify lines of symmetry in 2-D shapes presented in different orientations.
I can complete a simple symmetrical drawing across a line of symmetry.
I can identify and describe the properties of a range of 3D shapes (pyramids, prisms, cuboids, cubes, cones)
Position and Direction
I can describe positions on a 2-D grid as coordinates in the first quadrant
I can describe movements between positions as translations to the left/right and up/down in the first quadrant.
I can draw polygons by plotting specified points in the first quadrant.

Expected for the
Autumn Term (EXS)

25\% (13 or more) of objectives secure 13 must be number.

Expected for the Spring
Term (EXS)
(Greater Depth in the Autumn Term)
$50 \%$ (26 or more) of objectives secure
A significant quantity of which are number.

## Expected for the

Summer Term (EXS) (Greater Depth in the Spring Term)
$75 \%$ (39 or more) of objectives secure A significant number of which are number and all 'Ready to Progress' criteria are highlighted

## Greater Depth in the Summer Term (GDS)

95\% (50) of objectives are secure Many aspects are embedded and rapid There is consistent ability to apply in range of contexts at depth with high level reasoning. (Total objectives 52)

Children working within the correct year group objectives but not in the above criteria a 'working towards standard' (WTS)
Children working within a different year group objectives or 'below' (BLW)
Children working within a different key stages objectives or 'pre-key stage' (PKS) except where they are in Y3 working at Y2 which will be termed as BLW.
Number and Place Value
I can read, write, order and compare numbers to at least $1,000,000$ and determine the value of each digit
I can count forwards or backwards in multiples 2-12, 10, $20(200), 25(250), 50(500), 100,1000,10,000,100,000$ for any given number up to $1,000,000$
$I$ understand negative numbers and can count forwards and backwards through 0 using a variety of scales.
I can round any number up to $1,000,000$ to the nearest $10,100,1,000,10,000,100,000$
I can solve number problems and practical problems that involve all of the above
I can read Roman numerals to $1,000(\mathrm{M})$ and recognise years written in Roman numerals
I can recognise and use hundredths and relate them to whole numbers, tenths, hundredths and decimal equivalents (know that 10 tenths are equivalent to 1 one and that 1 is 10 times
the size of 0.11 . Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01 . Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01 )
I can read, write, order and compare numbers with up to 2 decimal places (Recognise the place value of each digit in numbers with up to 2 decimal places, and compose/decompose numbers with up to 2
decimal places using standard and non-standard partitioning)
I can reason about the location of any number with up to 2 decimal places in the linear number system, including identifying the previous and next multiple of 1 and
0.1 and rounding to the nearest of each.

I can divide 1 into the following equal parts and read scales/numberlines using them: 2 ( 0.5 ), 4 (0.25), 5 (0.2), and 10 (0.1)

## Addition and Subtraction

I can use the column method to add and subtract whole numbers with more than 4 digits.
I can add and subtract numbers mentally with increasingly large numbers (e.g. add/take mentally multiples of 10/100/1000)
I can use rounding/estimating to check answers to calculations
I can use the inverse operation to solve missing number calculations
I can solve addition and subtraction multi-step problems, deciding which operations and methods to use and why
Multiplication and Division

I can identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers
I recall prime numbers up to 19 and begin to establish whether a number up to 100 is a prime number. I know and use the vocabulary of prime numbers and prime factors
I can multiply numbers up to 4 digits by a 1-or 2-digit number using a formal written method, including long multiplication for two-digit numbers
I can multiply and divide numbers mentally, drawing upon known facts
I can $\div$ numbers up to 4 digits by a 1-digit number using the formal written method of short division and interpret remainders for the context
I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000
I can recognise and use square numbers and cube numbers, and the notation for squared ( ${ }^{2}$ ) and cubed ( ${ }^{3}$ )
I can solve problems involving $x$ and $\div$, including using knowledge of factors and multiples, squares and cubes
I can solve problems involving equivalent statements (balancing calculations)
I can solve problems involving $x$ and $\div$, including scaling by simple fractions and problems involving simple ratios
Fractions/Decimals/Percentages
I can compare and order fractions whose denominators are all multiples of the same number
I can identify, name and write equivalent fractions, understanding they have the same value and position in the linear number system
I can recognise mixed numbers and improper fractions and convert from one form to the other [e.g 2/5 + 4/5=6/5=11/5]
I can add and subtract fractions with the same denominator, and denominators that are multiples of the same number
I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
I can read and write decimal numbers as fractions [for example, 0.71 = 71/100]
I can solve problems involving number up to 2 decimal places
I can recognise the per cent symbol (\%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction
I can recall decimal fraction equivalents (incl percentage equivalents) $(1 / 2,1 / 4,1 / 5,1 / 10)$ and for multiples of these proper fractions
I can solve problems which require knowing percentage and decimal equivalents ( $1 / 2,1 / 4,3 / 4,1 / 5,2 / 5,4 / 5$ )
I can calculate non-unit fractions of a whole number.

## Measurement

I can convert between different units of metric measure including using common decimals and fractions [for example, $\mathrm{km} / \mathrm{m} ; \mathbf{c m} / \mathbf{m} ; \mathbf{c m} / \mathbf{m m} ; \mathbf{g} / \mathbf{k g} ; \mathrm{l} / \mathrm{ml}]$
I can measure and calculate the perimeter of composite rectangular shapes in centimetres and metres
I can calculate and compare the area of rectangles (including squares) using $\mathbf{c m}^{\mathbf{2}}$ and $\mathbf{m}^{\mathbf{2}}$ and estimate the area of irregular shapes
I can estimate volume [for example, using $1 \mathrm{~cm}^{3}$ blocks to build cuboids (including cubes)] and capacity [for example, using water]
I can solve problems involving converting between units of time
I can use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, incl. scaling
Properties of Shape
I can identify, compare and describe a range of 2D shapes (triangles, quadrilaterals) including understanding symmetry, angles, side length, parallel and perpendicular
I can identify 3-D shapes, including cubes and other cuboids, from 2-D representations
I know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
I can draw given angles, and measure them in degrees ( ${ }^{\circ}$ )
I can identify: angles at a point and 1 whole turn (total $360^{\circ}$ ): angles at a point on a straight line and half a turn (total $180^{\circ}$ ): other multiples of $90^{\circ}$
I can use the properties of rectangles to deduce related facts and find missing lengths and angles
I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles
Position and Direction
I can identify, describe and represent the position of a shape following a reflection or translation using the appropriate language and know that the shape has not changed.

## Statistics

I can complete, read and interpret information in tables, including timetables
I can solve comparison, sum and difference problems using information presented in a line graph

YEAR 6/BLACK END OF YEAR OBJECTIVES (55)

## Expected for the Autumn Term (EXS)

$25 \%$ (14 or more) of objectives secure All must be number

## Expected for the Spring <br> Term (EXS) <br> (Greater Depth in the Autumn Term) <br> Expected for the Summer <br> Term (EXS)

50\% (28 or more) of objectives secure A significant quantity of which are number.
(Greater Depth in the Spring Term)
$75 \%$ (41 or more) of objectives secure A significant number of which are number and all 'Ready to Progress' criteria are highlighted

Greater Depth in the Summer Term (GDS)
$95 \%$ (52) of objectives are secure. Many aspects are embedded and rapid. There is consistent ability to apply in range of contexts at depth with high leve reasoning
(Total objectives 55)

Children working within the correct year group objectives but not in the above criteria a 'working towards standard' (WTS)
Children working within a different year group objectives or 'below' (BLW) Children working within a different key stages objectives or 'pre-key stage' (PKS) except where they are in Y3 working at Y2 which will be termed as BLW

Number and Place Value
can read, write, order and compare numbers up to $10,000,000$ and determine the value of each digit, including decimal fractions, and compose and decompose numbers using standard and non-standard partitioning
I understand the relationship between powers of 10 from 1 hundredth to 10 million and use this to make a given number 10, 100, 1000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by $10,100,1000$ )
I can reason about the location of any number up to 10 million, including decimal fractions, in the linear number system and round numbers as appropriate, including in contexts. I can divide powers of 10, from 1 hundredth to 10 million, into $2,4,5$, and 10 equal parts and read scales/number lines with labelled intervals divided into 2 , 4,5 , and 10 equal parts I can use negative numbers in context, and calculate intervals across 0
I can solve number and practical problems that involve all of the above

## Addition, Subtraction, Multiplication and Division

I can understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). e.g. 20 can be made into 60 by adding 40 or $x$ by 3 (and the inverse)
I can use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships and place value understanding (e.g.
being able to work fluently with a range of related equations across 4 operations
I can multiply multi-digit numbers up to 4 digits by a two-digit whole number using long multiplication
I can $\div$ numbers up to 4 digits by a 2-digit whole number long $\div$, and interpret remainders as whole numbers, fractions, or by rounding, as appropriate for the context
I can divide numbers up to 4 digits by a two-digit number using short division where appropriate, interpreting remainders according to the context
I can perform mental calculations, including with mixed operations and large numbers
I can identify common factors, common multiples, prime numbers (up to 19), square numbers up to 144
I use my knowledge of the order of operations to carry out calculations involving the 4 operations
I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
I can reason and solve problems involving addition, subtraction, multiplication and division
I can use estimation to check answers to calculations and determine an appropriate degree of accuracy
Fractions (including decimals and percentages)
can use common factors to simplify fractions; use common multiples to express fractions in the same denomination
I can compare and order fractions (including expressing fraction in a common denomination)
Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy
I can add and subtract fractions (and decimals) with different denominators and mixed numbers, using the concept of equivalent fractions
I can multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1 / 4 \times 1 / 2=1 / 8$ ]
I can divide proper fractions by whole numbers [for example, $1 / 3 \div 2=1 / 6$ ]
I can associate a fraction with division and calculate decimal fraction equivalents [for example, $0.375=3 / 8$ ]
I can identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places
I can multiply one-digit numbers with up to 2 decimal places by whole numbers
I can use written division methods in cases where the answer has up to 2 decimal places
I can recall and use equivalences between simple fractions, decimals and percentages in different contexts
I can solve problems which need answers to be rounded to a requested number of decimal places

## Ratio and Proportion

I can solve problems involving ratio relationships including the relative sizes of 2 quantities and where there are missing values
I can reason and solve problems where I calculate and compare percentages/fractions of quantities [e.g. $15 \%$ of 360 compared to $20 \%$ of 300 ]
I can solve problems involving similar shapes where the scale factor is known or can be found
I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples (e.g $3 / 5$ of the class are boys)
Algebra
I can generate and describe linear number sequences
I can express missing number problems algebraically
I can solve problems with two unknowns (e.g. find pairs of numbers that satisfy an equation with 2 unknowns)
I can find possibilities of combinations of 2 variables e.g. $a+b=20$

## Measurement: TEACHERS MUST TRACK BACK TO COVERAGE AT Y4 and Y5 e.g. time, duration, perimeter/area

I can reason and solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate
I can use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decima notation to up to 3 decimal places
I can convert between miles and kilometres and other imperial measures e.g. pints, inches, pounds
I can recognise that shapes with the same areas can have different perimeters and vice versa
I can recognise when it is possible to use formulae for area and volume of shapes
I can calculate the area of parallelograms and triangles
I can calculate, estimate and compare volume of cubes and cuboids using $\mathrm{cm}^{3}$ and $\mathrm{m}^{3}$, and extending $\mathrm{mm}^{3}$ and $\mathrm{km}^{3}$

## Properties of Shape, position and direction

I can draw 2-D shapes using given dimensions and angles
I can recognise, describe and build simple 3-D shapes, including making net
I can compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
I can illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
I can describe positions on the full coordinate grid (all 4 quadrants)
I can use reasoning to solve problems related to co-ordinates, reflections and translations. I can draw and translate simple shapes on the coordinate plane, and reflect them in the axes
Draw, compose and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.
Statistics
I can interpret and construct pie charts and line graphs and use these to solve problems
Stis
I can calculate and interpret the mean as an average

