YEAR 1

Fractions and Decimals:

- recognise, find and name a half and a quarter as one of two or four equal parts of an object, shape or quantity

Number and Place Value:

- count to and across 100, forwards and backwards, beginning from any given number
- count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
- identify 1 more and 1 less
- 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
- read and write numbers from 1 to 20 in numerals and words

Addition and Subtraction:

- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems

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

Geometry:

- recognise and name common 2-D and 3-D shapes,
- describe position, direction and movement, including whole, half, quarter and three-quarter turns.

Measurement:

- compare, describe and solve practical problems for: lengths and heights, mass/weight, capacity and volume, time
- recognise and know the value of different denominations of coins and notes sequence events in chronological order using language
- use language relating to dates, including days of the week, weeks, months and years tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

YEAR 2

Number and Place Value:

- count in steps of 2, 3, and 5 from 0, and in tens from any number
- recognise the place value of each digit in a two-digit number
- identify, represent and estimate numbers using different representations
- use and = signs read and write numbers to at least 100 in numerals and in words

Fractions and Decimals:

- recognise, find, name and write fractions 1/3, ¼, 2/4,and ¾ of a length, shape, set of objects or quantity
- write simple fractions

Addition and Subtraction:

- solve problems with addition and subtraction
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 add and subtract numbers
- show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Multiplication and Division:

- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables,
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.

Geometry:

- identify and describe the properties of 2-D and 3-D shapes,
- compare and sort common 2-D and 3-D shapes and everyday objects
- order and arrange combinations of mathematical objects in patterns and sequences .

Statistics:

- interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
- ask and answer questions about totaling and comparing

Measurement:

- choose and use appropriate standard units to estimate and measure length/height in any direction
- recognise and use symbols for pounds (£) and pence (p)
- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- compare and sequence intervals of time tell and write the time to five minutes,

END OF KS1


YEAR 3
Fractions and Decimals:
Understand tenths
Compare and order unit fractions
Using diagrams, recognise and show equivalent fractions
Adding and subtracting fractions with the same denominator
Number and Place Value:
Numbers to 1000
Count from 0 in multiples of 4,8,50 and 100
Solve number problems and practical problems involving these ideas
Addition and Subtraction:
Three digit numbers to one, ten and hundreds
Multiplication and Division:
—3, 4 and 8 times tables
Solve problems including missing number problems for all four operations
Geometry:
Draw 2-D shapes and make 3D shapes
Right angles and turns
Parallel and perpendicular lines
Money—
Add and subtract amounts to give change (£ and p)
Measurement:
Measure, compare, add and subtract lengths (m/cm/mm)
Measure the perimeter of simple shapes
Time—
Tell and write the time with increasing accuracy
YEAR 4
Number and Place Value:
Numbers using 1000
Negative numbers
Round to the nearest 10,100 or 1000
Read Roman numerals to 100
Fractions and Decimals:
Understand hundredths
Recognise and show families of common equivalent fractions
Solve simple measure and money problems involving fractions and decimals to 2 decimal places
Addition and Subtraction:
Calculate with 4 digit numbers
Solve two-step problems in contexts
Multiplication and Division:
Recall and use facts up to 12 times tables
Geometry:
identify and describe the properties of 2-D and 3-D shapes,
compare and sort common 2-D and 3-D shapes and everyday objects
order and arrange combinations of mathematical objects in patterns and sequences .
Time:
Read, write and covert time between analogue and digital clocks
Geometry :
Geometric shapes
Acute and obtuse angles
Identify lines of symmetry in 2-D shapes
Money:
Calculate and compare money in £s
Measurement:
Measure the perimeter of a rectilinear figure
Find the area of rectilinear shapes by counting squares
Solve problems involving converting between different units of measure and pence
END OF LKS2

YEAR 5

Fractions/Decimals/ Percentages:

- Multiply proper fractions and mixed numbers by whole numbers
- Solve problems which require knowing percentage and decimal equivalents

Number and Place Value:

- Numbers to 1 000 000
- Negative numbers
- Round to the nearest 10,100, 1000, 10 000 or 100 000 Count forwards or backwards in steps of powers of 10

Addition and Subtraction:

- Add and subtract whole numbers with more than 4 digits
- Solve multi-step problems, deciding which operations and methods to use and explaining why

Multiplication and Division:

- Multiples/factors and prime numbers

Geometry:

- Identify, describe and represent the position of a shape following a reflection or translation
- Distinguish between regular and irregular polygons

Statistics:

- Interpret information from line graphs and tables
- Solve comparison problems using information presented in a line graph

Time:

- Solve problems involving converting between units of time

Measurement:

- Calculate the area of rectangles
- Convert between different units of metric measure [km—m, cm-m, cm-mm, g-kg, l—ml]
- Use all four operations to solve problems involving measure

YEAR 6

Number and Place Value:

- Numbers to 10 000 000
- Negative numbers
- Round any whole number to a required degree of accuracy
- Solve number problems that involve all of the above

Fractions/Decimals/Percentages:

- Simplify fractions
- Calculate with fractions
- Use equivalence between FDP
- Solve problems which require answers to be rounded to specified degrees of accuracy

Statistics:

- Interpret and construct pie charts
- Calculate the mean as an average

Four operations:

- Perform mental calculations, including with mixed operations and large numbers.
- Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy
- Use their knowledge of the order of operations to carry out calculations involving the 4 operations

Geometry:

- Describe positions on all four quadrants
- Find missing angles

Ratio:

- Solve problems involving unequal sharing and grouping

Algebra:

- Use simple formulae
- Enumerate possibilities of combinations of two variables

Measurement:

- Calculate and convert units of measure
- Recognise when it is possible to use formulae for area and volume of shapes

END OF KS2