# Key Learning in Mathematics:

## EYFS:

Nursery	· Say number names in order to 10;
	· Match numbers to quantities to 10;
	· Compare groups of objects recognising more and less.

Reception	· Put numbers in order to 20;
	· Say 1 more and one less than a given number to 20;
	· Add and subtract two single digit numbers;
	· Know that doubling is two sets of the same number;
	· Split a group in half.

### Key stage 1

Y	ear 1	· Count on and back in 1s, 2s, 5s and 10s from any given number to 100;
		· Recall all pairs of addition and subtraction number bonds to 20 and represent these using objects;
		· Given a number, identify one more / one less;
		· Read and write any number from 1-20 in numerals and words.

Year 2	· Recognise odd and even numbers to 100;	
	· Compare and order numbers from 0 to 100 using the >, < and = signs;	
	Find simple fractional values of shapes or quantities: 1/3, ¼, ½, ¾ ;	
	· Recall and use multiplication and division facts for the 2, 5 and 10x multiplication tables;	
	· Add and subtract 2-digit numbers using an efficient method and explain the method verbally.	

#### Key stage 2

Year 3	· Compare and order numbers to 1000 using the >, < and = signs;
	· Recall multiplication and division facts for 2, 3, 4, 5 and 8 and 10x multiplication tables;
	· Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators;
	· Mentally add and subtract 2-digit numbers with speed;
	· Add and subtract 3-digit numbers using formal written methods;
	· Interpret two step problems and identify the calculations needed.

### **Year 4** • Recall all multiplication and division facts to 12 x 12;

 $\cdot$  Round any number to the nearest 10, 100 or 1000 and decimals with one decimal place;

Know the value of digits in numbers up to 2 decimal places;

· Interpret two step problems, identifying calculations needed and unit of measure in answer (if appropriate);

Become fluent in finding fractions of quantities including the use of non-unit fractions;

Confidently multiply and divide by 10 and 100;

Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.

### Year 5

· Know and understand place value to 1 million recognising the position of each digit;

Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction);

Solve problems involving multiplication and division, using their knowledge of factors and multiples, squares and cubes;

Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers;

· Compare and order fractions whose denominators are all multiples of the same number;

Read, write, order and compare numbers with up to three decimal places and write them as fractions for [example, 0.71 = 71/100];

Interpret problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25;

· Know the fraction, decimal and percentage equivalents to: halves, thirds, quarters, fifths, eighths, tenths including non-unit fractions.

## Year 6

 $\cdot$  Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit;

Round any whole number to a required degree of accuracy;

· Multiply and divide multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication and division;

· Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why;

 $\cdot$  Multiply and divide simple pairs of proper fractions, writing the answer in its simplest form;

Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts;

· Solve problems involving the calculation of percentages and the use of percentages for comparison;

· Use simple formulae and express missing number problems algebraically;

Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.