

YEAR 3

CALCULATIONS (+, -, x and ÷)

- ❖ add and subtract numbers mentally, including:
 - a three-digit number and ones
 - a three-digit number and tens
 - a three-digit number and hundreds
 - add and subtract numbers with up to three digits
- ❖ use formal written methods of column addition and subtraction
- ❖ estimate the answer to a calculation and use inverse operations to check answers
- ❖ solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction and multiplication and division facts.
- ❖ recall and use multiplication and division facts for the 3, 4 and 8 times tables
- ❖ write and calculate mathematical statements for multiplication and division including two-digit numbers times one-digit numbers, using mental methods and progressing to formal written methods

NUMBER

- ❖ count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
- ❖ recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
- ❖ compare and order numbers up to 1000
- ❖ identify, represent and estimate numbers using different representations
- ❖ read and write numbers up to 1000 in numerals and in words
- ❖ solve number problems and practical problems involving these ideas.

Lower Key Stage 2 Maths - Number

FRACTIONS

- ❖ recognise and show, using diagrams common equivalent fractions
- ❖ count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- ❖ solve problems involving increasingly harder fractions to calculate quantities
- ❖ add and subtract fractions with the same denominator
- ❖ recognise and write decimal equivalents of any number of tenths or hundredths
- ❖ recognise and write decimal equivalents to $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$
- ❖ find the effect of 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
- ❖ round decimals with one decimal place to the nearest whole number
- ❖ compare numbers with the same number of decimal places up to two decimal places
- ❖ solve simple measure and money problems involving fractions and decimals to two decimal places.

NUMBER

- ❖ count in multiples of 6, 7, 9, 25 and 1000
- ❖ find 1000 more or less than a given number
- ❖ count backwards through zero to include negative numbers
- ❖ recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
- ❖ order and compare numbers beyond 1000
- ❖ identify, represent and estimate numbers including measures
- ❖ round any number to the nearest 10, 100 or 1000
- ❖ solve number and practical problems that involve all of the above and with increasingly large positive numbers
- ❖ 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

CALCULATIONS (+, -, x and ÷)

- ❖ add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction
- ❖ 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.
- ❖ recall multiplication and division facts for multiplication tables up to 12×12
- ❖ 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
- ❖ recognise and use factor pairs and commutativity in mental calculations
- ❖ multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- ❖ solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit

FRACTIONS

- ❖ count up and down in tenths; recognise that tenths is dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
- ❖ recognise, find and write fractions of a set of objects
- ❖ recognise and use fractions as numbers
- ❖ recognise and show, using diagrams, equivalent fractions with small denominators
- ❖ add and subtract fractions with the same denominator within one whole (e.g. $\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$)
- ❖ compare and order fractions with the same denominators
- ❖ solve problems that involve all of the above.

YEAR 4