Maths Curriculum - Year 3 - Key Skills Areas

Number and Place Value:

|	Counting	Writing Numbers	Representing Numbers	Place Value	Comparing and Ordering	Rounding	Problems
Year 3	• count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number	• read and write numbers up to 1000 in numerals and in words	• identify, represent and estimate numbers using different representations	• recognise the place value of each digit in a three-digit number (hundreds, tens, ones)	• compare and order numbers up to 1000		• solve number problems and practical problems involving these ideas.

Addition and Subtraction:

	Number Statements	Mental Recall	Addition	Subtraction	Relationships	Problems
Year 3		• Add & subtract numbers **mentally**, including: • HTU +/- U • HTU +/- T • HTU +/- H	• Add numbers with up to three digits, using formal written methods of columnar addition	• Subtract numbers with up to three digits, using formal written methods of columnar 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..

Examples:

Written Methods:

249 + 32 = 281

  2 4 9
+   3 2
─────
  2 8 1
    1
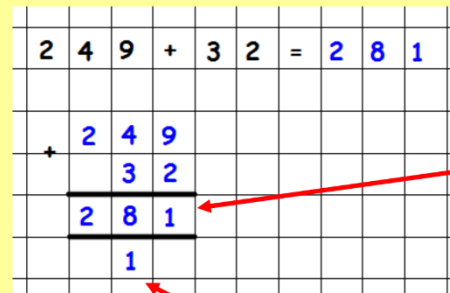
Children should use the language of, "4 tens and 3 tens make 7 tens." NOT, "4 and 3 make 7."

Children add from the 'ones' column first.

Carried digits recorded under the line.

Children should be encouraged to use their knowledge of rounding to help estimate their answers first and to check using the inverse calculation. This should also help deepen their understanding of the relationship between addition and subtraction.

Written Methods:

Children should be introduced to the **Expanded Decomposition** method. First with numbers which do not require **exchange**. Once children are secure, they can move onto numbers which do require exchange, still using the expanded method, before moving into **Compact Column Subtraction**.

53 - 36 = 17

  40
  5̶0 + 13
- 3 0 + 6
─────────
  1 0 + 7

    4
  5̶ 3
-   3 6
─────
  1 7
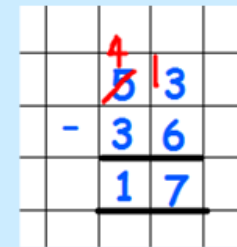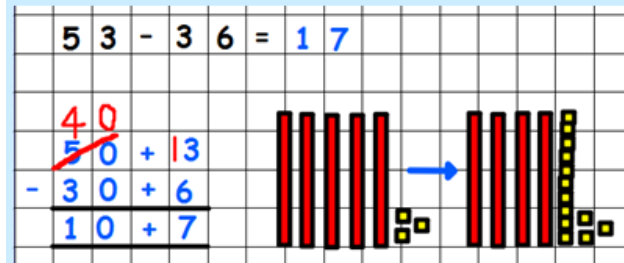
Multiplication and Division:

	Number Statements	Mental Recall	Written Calculations	Relationships	Numbers	Problems
Year 3		• Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	• Write and calculate mathematical statements for multiplication using the multiplication tables that they know, including: • TU x/÷ U using mental and progressing to efficient written methods			• Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.

Examples:

Written Methods:

Children should move onto **Formal Short Multiplication**, using the **Expanded Method** as an interim step if necessary.

The two-digit number should be partitioned clearly.

Interim Step (if required)

Written Methods:

Children should move into the **Formal written method of short division.**

The formal layout should be <u>introduced</u> with multiplication facts the children already know.

A comparison to an array could be made to introduce the layout of the formal method.

Fractions:

	Recognising Fractions	Decimals	Finding FDP	Links to Place Value	Comparing and Ordering FDP	Operations	Problems
Year 3	Recognise and use fractions as numbers; unit fractions and non-unit fractions with small denominators Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10		Recognise, find and write fractions of a discrete set of objects; unit fractions and non-unit fractions with small denominators	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10	Recognise and show, using diagrams, equivalent fractions with small denominators Compare and order unit fractions with the same denominator	Add and subtract fractions with the same denominator within one whole (e.g. 5/7 + 1/7 = 6/7)	Solve problems that involve all Y3 objectives

Non Key Skills Areas:

Geometry:

	2D Shapes	3D Shapes	Symmetry	Angles	Coordinates	Translations	Problems
Year 3	Draw 2-D shapes; and describe them with increasing accuracy	Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations; and describe them with increasing accuracy Identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.		Recognise angles as a property of shape and associate angles with turning Identify right angles, recognise that two right angles make a half-turn, three make three-quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle			

Measures:

	Measuring	Units	Money	Area	Perimeter	Capacity	Time	Problems
Year 3	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) Measure the perimeter of simple 2-D shapes		Add and subtract amounts of money giving change, using both £ and p in practical contexts		Measure the perimeter of simple 2-D shapes		Tell and write the time from an analogue clock, including using Roman numerals from 1 to X11, and 12 hour and 24 hour clocks Estimate and read time to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight Know the number of seconds in a minute and the number of days in each month, year and leap year Compare durations of events, for example to calculate the time taken by particular events or tasks.	

Statistics:

	Constructing Graphs	Interpreting Graphs	Tables	Averages	Problems
Year 3	Interpret and present data using **bar charts, pictograms** and **tables**	Interpret and present data using **bar charts, pictograms** and **tables**	Interpret and present data using **bar charts, pictograms** and **tables**		Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in **scaled bar charts** and **pictograms** and **tables**.