



Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Number – number and place value</b>					
<ul style="list-style-type: none"> <li>count from 0 in multiples of 50 and 100</li> <li>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> </ul>	<ul style="list-style-type: none"> <li>count from 0 in multiples of 4, 50 and 100</li> <li>compare and order numbers up to 1000</li> </ul>	<ul style="list-style-type: none"> <li>count from 0 in multiples of 4, 8, 50 and 100; find 10 more or less than a given number</li> <li>identify, represent and estimate numbers using different representations</li> </ul>	<ul style="list-style-type: none"> <li>count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</li> <li>read and write numbers up to 1000 in numerals</li> </ul>	<ul style="list-style-type: none"> <li>read and write numbers up to 1000 in numerals and in words</li> <li>solve number problems and practical problems involving these ideas.</li> </ul>	<ul style="list-style-type: none"> <li>solve number problems and practical problems involving all Yr 3 number and place value concepts ideas.</li> </ul>
<b>Number – addition and subtraction</b>					
<ul style="list-style-type: none"> <li>add and subtract numbers mentally: a three-digit number and ones</li> <li>add numbers with up to three digits, using formal written methods of columnar addition</li> </ul>	<ul style="list-style-type: none"> <li>add and subtract numbers mentally: a three-digit number and ones; a three-digit number and tens</li> <li>add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>add and subtract numbers mentally, including: □ a three-digit number and ones; a three-digit number and tens; a three-digit number and hundreds</li> <li>estimate the answer to a calculation to check answers</li> </ul>	<ul style="list-style-type: none"> <li>estimate the answer to a calculation and use inverse operations to check answers</li> <li>solve problems using number facts and place value.</li> </ul>	<ul style="list-style-type: none"> <li>solve problems, including missing number problems, using number facts and place value</li> </ul>	<ul style="list-style-type: none"> <li>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>
<b>Number – multiplication and division</b>					
<ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 3 multiplication tables</li> </ul>	<ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 3, 4 multiplication tables</li> </ul>	<ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</li> <li>write and calculate mathematical statements for multiplication and division using the multiplication tables that they know using mental methods</li> </ul>	<ul style="list-style-type: none"> <li>write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods and progressing to formal written methods</li> </ul>	<ul style="list-style-type: none"> <li>solve problems, including missing number problems, involving multiplication and division</li> </ul>	<ul style="list-style-type: none"> <li>solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</li> </ul>
<b>Number – fractions</b>					
<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> </ul>	<ul style="list-style-type: none"> <li>recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators □ recognise and show, using diagrams, equivalent fractions with small denominators</li> </ul>	<ul style="list-style-type: none"> <li>add and subtract fractions with the same denominator within one whole [for example, <math>5/7 + 1/7 = 6/7</math>]</li> </ul>	<ul style="list-style-type: none"> <li>compare and order unit fractions, and fractions with the same denominators</li> </ul>	<ul style="list-style-type: none"> <li>solve problems that involve all Y3 Number-fractions concepts</li> </ul>
<b>Measurement</b>					

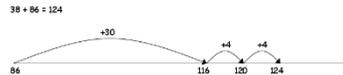
<ul style="list-style-type: none"> <li>measure, compare, add and subtract: lengths (m/cm);</li> <li>add and subtract amounts of money to give change, using £ in practical contexts</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>measure, compare, add and subtract: lengths (m/cm/mm);</li> <li>add and subtract amounts of money to give change, using both £ and p in practical contexts</li> <li>tell and write the time from an analogue clock,</li> <li>use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight</li> </ul>	<ul style="list-style-type: none"> <li>measure, compare, add and subtract: mass (kg/g)</li> <li>estimate and read time with increasing accuracy to the nearest minute</li> <li>know the number of seconds in a minute and the number of days in each month, year and leap year</li> </ul>	<ul style="list-style-type: none"> <li>measure, compare, add and subtract: volume/capacity (l/ml)</li> <li>measure the perimeter of simple 2-D shapes</li> <li>tell and write the time from an analogue clock, including using Roman numerals from I to XII</li> </ul>	<ul style="list-style-type: none"> <li>tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour</li> <li>record and compare time in terms of seconds, minutes and hours</li> </ul>	<ul style="list-style-type: none"> <li>tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</li> <li>compare durations of events [for example to calculate the time taken by particular events or tasks].</li> </ul>
<b>Geometry – properties of shapes</b>					
<ul style="list-style-type: none"> <li>draw 2-D shapes;</li> </ul>	<ul style="list-style-type: none"> <li>draw 2-D shapes and make 3-D shapes using modelling materials;</li> </ul>	<ul style="list-style-type: none"> <li>draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</li> </ul>	<ul style="list-style-type: none"> <li>recognise angles as a property of shape or a description of a turn</li> <li>identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn;</li> </ul>	<ul style="list-style-type: none"> <li>identify whether angles are greater than or less than a right angle</li> </ul>	<ul style="list-style-type: none"> <li>identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</li> </ul>
<b>Statistics</b>					
<ul style="list-style-type: none"> <li>interpret and present data using pictograms</li> </ul>	<ul style="list-style-type: none"> <li>solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled pictograms</li> </ul>	<ul style="list-style-type: none"> <li>interpret and present data using bar charts, pictograms</li> </ul>	<ul style="list-style-type: none"> <li>solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms</li> </ul>	<ul style="list-style-type: none"> <li>interpret and present data using bar charts, pictograms and tables</li> </ul>	<ul style="list-style-type: none"> <li>solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.</li> </ul>
<p><b>On-going:</b> count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number; recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</p>					

## Addition Methods

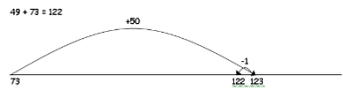
- Children will continue to use empty number lines with increasingly large numbers, including compensation where appropriate.

### Autumn Term

- ✓ Count on from the largest number irrespective of the order of the calculation.



- ✓ Compensation



### Spring & Summer Term

Children will begin to use informal pencil and paper methods (jottings) to support, record and explain partial mental methods building on existing mental strategies.

Adding the smaller units first.

$\begin{array}{r} 67 \\ + 24 \\ \hline 11 \text{ (7 + 4)} \\ 80 \text{ (60 + 20)} \\ \hline 91 \end{array}$	$\begin{array}{r} 267 \\ + 85 \\ \hline 12 \text{ (7 + 5)} \\ 140 \text{ (60 + 80)} \\ \hline 200 \\ \hline 352 \end{array}$
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## Subtraction Methods

- Children will continue to use empty number lines with increasingly large numbers.

### Autumn Term

Children will begin to use informal pencil and paper methods (jottings).

- ✓ Partitioning and decomposition
  - Partitioning – demonstrated using arrow cards
  - Decomposition - base 10 materials
- $$\begin{array}{r} 89 \\ - 57 \\ \hline 30 + 2 = 32 \end{array}$$

### Spring & Summer Term

- ✓ Begin to exchange.

$$\begin{array}{r} 71 \\ - 46 \\ \hline \end{array}$$

Step 1  $\begin{array}{r} 70 + 1 \\ - 40 + 6 \\ \hline \end{array}$

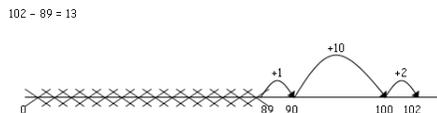
Step 2  $\begin{array}{r} 60 + 11 \\ - 40 + 6 \\ \hline 20 + 5 = 25 \end{array}$

The calculation should be read as e.g. take 6 from 1.

This would be recorded by the children as

$$\begin{array}{r} 70 + 1 \\ - 40 + 6 \\ \hline 20 + 5 = 25 \end{array}$$

Where the numbers are involved in the calculation are close together or near to multiples of 10, 100 etc counting on using a number line should be used.

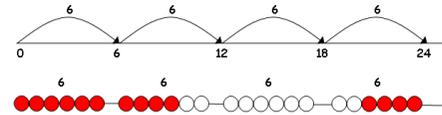


## Multiplication Methods

- Children will continue to use:

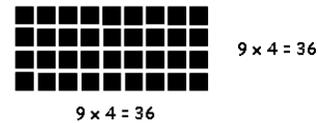
- ✓ Repeated addition  
4 times 6 is  $6 + 6 + 6 + 6 = 24$  or 4 lots of 6 or  $6 \times 4$

Children should use number lines or bead bars to support their understanding.



- ✓ Arrays

Children should be able to model a multiplication calculation using an array. This knowledge will support with the development of the grid method. (Grid method not covered until Y4)



- ✓ Scaling

e.g. Find a ribbon that is 4 times as long as the ue ribbon



- ✓ Using symbols to stand for unknown numbers to complete equations using inverse operations

$$\square \times 5 = 20 \qquad 3 \times \triangle = 18$$

$$\square \times \bigcirc = 32$$

- ✓ Partitioning

$$38 \times 5 = (30 \times 5) + (8 \times 5)$$

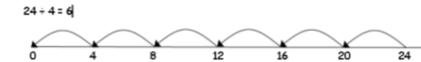
$$= 150 + 40 = 190$$

## Division Methods

- Children will continue to use:

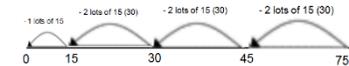
- ✓ Repeated subtraction using a number line.

Children will use an empty number line to support their calculation.



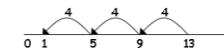
- ✓ Repeated subtraction using a number line – taking away larger groups of the divisor.

$$75 \div 15 =$$



- ✓ Children should also move onto calculations involving remainders.

$$13 \div 4 = 3 \text{ r } 1$$



- ✓ Using symbols to stand for unknown numbers to complete equations using inverse operations

$$26 \div 2 = \square \qquad 24 \div \triangle = 12$$

$$\square \div 10 = 8$$

