



Progression in written calculation strategies for **addition**

(Examples indicate end of year expectations)

Reception

Statutory Guidance

Have a deep understanding of number to 10, including the composition of each number.

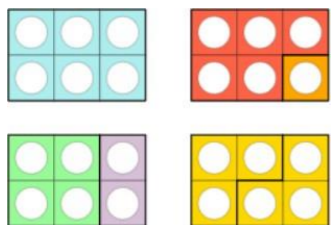
Subitise (recognise quantities without counting) to 5.

Verbally count beyond 20, recognising the pattern of the counting system.

Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

e.g. compose 6 in different ways



e.g. How many more to make 5?

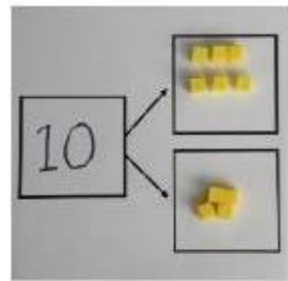


Year 1

Statutory Guidance

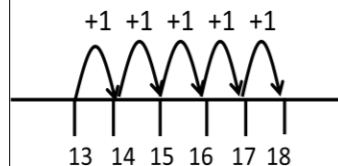
Add one-digit and two-digit numbers to 20, including zero. Solve one-step problems that involve addition, using concrete objects and pictorial representations, and missing number problems.

Possible representations
Combining two parts to make a whole: part-whole model.

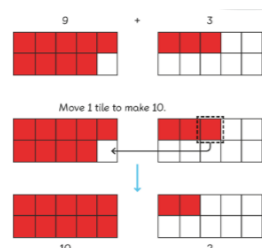


$$10 = 6 + 4$$

Starting at the bigger number and counting on:
e.g. $13 + 5 =$



Add by making 10 e.g. $9 + 3 =$



Add by adding ones e.g. $12 +$

Year 2

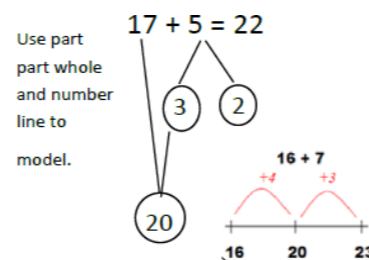
Statutory Guidance

Solve problems with addition:

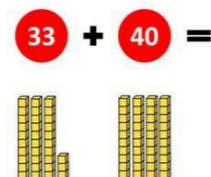
- using concrete objects and pictorial representations, including those involving numbers, quantities and measures
- applying their increasing knowledge of mental and written methods

Add numbers using concrete objects, pictorial representations, and mentally, including:

- a two-digit number and ones
- a two-digit number and tens
- two two-digit numbers
- adding three one-digit numbers



Adding two 2-digit numbers using columnar addition e.g. Using Base 10 representations to add two 2-digit numbers e.g.



Year 3

Statutory Guidance

Add numbers with up to three digits, using formal written methods of columnar addition.

Solve problems, including missing number problems, using number facts, place value, and more complex addition.

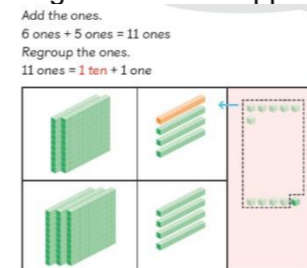
e.g. $376 + 57 =$
(expanded addition with renaming)

$$\begin{array}{r} 376 \\ + 57 \\ \hline 113 \\ 300 \\ \hline 433 \end{array}$$

Or $236 + 345 = 581$
(compact addition with renaming)

	h	t	o
236	2	3	6
+ 345	3	4	5
581	5	8	1

Using Base 10 to support.



White Rose video link and parent activity book

Year 4

Statutory Guidance

Add numbers with up to 4 digits using the formal written methods of columnar addition where appropriate e.g. $6321 + 853$

$$\begin{array}{r} 6321 \\ + 853 \\ \hline 7179 \end{array}$$

Measurement
Based on statutory guidance linked to money and measures to 2 decimal places.
e.g. $67.75 + 21.50$

$$\begin{array}{r} 67.75 \\ + 21.50 \\ \hline 89.25 \end{array}$$

White Rose video link and parent activity book

<https://vimeo.com/462718069>

<https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Y4-HL-Autumn-Block-2-Addition-and-subtraction-2020.pdf>

Year 5

Statutory Guidance

Add whole numbers with more than 4 digits, including using formal methods (columnar addition)
e.g. $12478 + 73649$

$$\begin{array}{r} 12478 \\ + 73649 \\ \hline 19847 \end{array}$$

Measurement
Based on statutory guidance linked to money and measures to 2 decimal places.

$$\begin{array}{r} \text{£} 23.59 \\ \text{£} 7.55 \\ \hline \text{£} 31.14 \end{array}$$

White Rose video link and parent activity book

<https://vimeo.com/458471908>

<https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Y5-HL-Autumn-Block-2-Addition-and-subtraction-2020.pdf>

Year 6

Statutory Guidance

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

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

Insert zeros for place holders.

$$\begin{array}{r} 23.361 \\ 9.080 \\ 59.770 \\ + 1.300 \\ \hline 93.511 \end{array}$$

White Rose video link and parent activity book

<https://vimeo.com/456839553>

<https://vimeo.com/456840256>

<https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Y6-HL-Autumn-Block-2-Four-operations-A-2020.pdf>

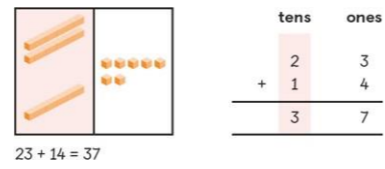
6 =
White Rose video link and
parent activity book

<https://vimeo.com/461446296>

<https://vimeo.com/467773676>

<https://vimeo.com/466112329>

<https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Y1-HL-Autumn-Block-2-Addition-and-subtraction-within-10-2020.pdf>



White Rose video link and
parent activity book

<https://vimeo.com/465863014>

<https://vimeo.com/465863511>

<https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Y2-HL-Autumn-Block-2-Addition-and-subtraction-2020.pdf>

<https://vimeo.com/465738425>

<https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Y3-HL-Autumn-Block-2-Addition-and-subtraction-2020.pdf>