

YEAR 4	Addition	
Vocabulary: thousands, hundreds, tens, ones, estimate, partition, recombine, increase, near multiple of 10 and 100, inverse, rounding, column addition, exchange, addend + addend = sum/total (See previous year groups)		
Concrete	Pictorial	Abstract
Add whole numbers with up to 4 digits. No exchanging: 2365 + 1424 = 3789	Add whole numbers with up to 4 digits. No exchanging: 2365 + 1424 = 3789	Written Add whole numbers with up to 4 digits. No exchanging: (demo expanded first - see year 3)
1000s 100s 10s 1s 1000 1000 100 100 100 10 10 10 10 10 1 1 1 1 1 1000 100 100 100 100 10 10 1 1 1 1	+ 4 + 20 + 400 + 1000 2365 2369 2389 2789 3789	2365 + 1424 3789
Exchanging: 6,432 + 1,737 = 8169	Exchanging: 6432 + 1737 = 8169	Exchanging:
1000s 100s 10s 1s 1000 1000 1000 1000 1000 100 100 100 100 100 10 10 10 10 10 1 1 1000 100 100 100 100 100 10 10 1 1 1 1 1000	+ 7 +30 + 700 + 1000 6432 6439 6469 7169 8169 (Could split + 700 into + 600 then + 100 to cross boundaries)	Expanded Compact Th H T O 6 432 + 1 737 9 60 1 100 7 000 8 169 Th H T O 6 432 + 1 737 8 169 1
Start without exchanging leading onto exchanging at different points (ones to tens; tens to hundreds etc).		

Add decimals up to 2 decimal places (as money or measures):

$$£15.54 + £26.25 = £41.79$$

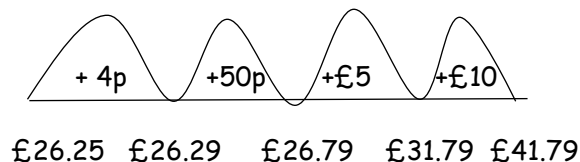
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Use place value counters or money depending on the context.

Start with no exchanging leading to exchanging.

Add decimals up to 2 decimal places (as money or measures):

$$£15.54 + £26.25 = £41.79$$



Add decimals up to 2 decimal places (as money or measures):

Expanded	Compact
$ \begin{array}{r} £26.25 \\ + £15.54 \\ \hline 0.09 \\ 0.70 \\ 11.00 \\ \underline{30.00} \\ £41.79 \end{array} $	$ \begin{array}{r} £26.25 \\ + £15.54 \\ \hline £41.79 \\ 1 \end{array} $

Mental Methods:

Counting on:

$$2534 + 2150$$

$$2534 + 2000 + 100 + 50 = 4684$$

Using known facts and place value:

$$5060 + 47$$

$$60 + 47 = 107 \text{ so } 5060 + 47 = 5107$$

$$0.6 + 0.2$$

$$\text{If } 6 + 2 = 8 \text{ then } 0.6 + 0.2 = 0.8$$

Redistribution:

$$2504 + 3234 \text{ redistribute to } 2500 + 3238.$$

Adjusting:

Demo on a number line first.

$$2345 + 499 \text{ (add 500 and subtract 1)}$$

$$2345 + 2999 \text{ (add 3000 and subtract 1)}$$

Partitioning:

$$2314 + 1242$$

$$2000 + 1000 = 3000$$

$$300 + 200 = 500$$

$$10 + 40 = 50$$

$$4 + 2 = 6$$

$$3000 + 500 + 50 + 6 = 3556$$