Peppard CE Primary Calculation Policy 2017 onwards.
Year 5 - 6 Addition and Subtraction.

(Adapted from the Abacus maths scheme).

Mental Addition

Year 5

Using place value

Count in 0·1s, 0·01s

e.g. *Know what 0·1 more than 0·51 is*

10s	1s	0·1s	0·01s
	0	5	1

Partitioning

e.g. *2·4 + 5·8 as 2 + 5 and 0·4 + 0·8 and combine the totals: 7 + 1·2 = 8·2*

0·1	0·2	0·3	0·4	0·5	0·6	0·7	0·8	0·9	1
1·1	1·2	1·3	1·4	1·5	1·6	1·7	1·8	1·9	2
2·1	2·2	2·3	2·4	2·5	2·6	2·7	2·8	2·9	3
3·1	3·2	3·3	3·4	3·5	3·6	3·7	3·8	3·9	4
4·1	4·2	4·3	4·4	4·5	4·6	4·7	4·8	4·9	5
5·1	5·2	5·3	5·4	5·5	5·6	5·7	5·8	5·9	6
6·1	6·2	6·3	6·4	6·5	6·6	6·7	6·8	6·9	7
7·1	7·2	7·3	7·4	7·5	7·6	7·7	7·8	7·9	8
8·1	8·2	8·3	8·4	8·5	8·6	8·7	8·8	8·9	9
9·1	9·2	9·3	9·4	9·5	9·6	9·7	9·8	9·9	10

Year 6

Using place value

Count in 0·1s, 0·01s, 0·001s

e.g. *Know what 0·001 more than 6·725 is*

Partitioning

e.g. *9·54 + 3·23 as 9 + 3, 0·5 + 0·2 and 0·04 + 0·03, to give 12·77*

Counting on

Add two decimal numbers by adding the 1s, then the 0·1s/0·01s/0·001s

e.g. *6·314 + 3·006 as 6·314 + 3 (9·314) + 0·006 = 9·32*

Add near multiples of 1 e.g.

6·345 + 0·999

e.g. *5·673 + 0·9*

Count on from large numbers e.g. *16 375 + 12 003 as 28 375 + 3*

Mental Addition

Year 5

Counting on

Add two decimal numbers by adding the 1s, then the 0·1s/0·01s e.g.

5·72 + 3·05 as 5·72 + 3 (8·72) + 0·05 = 8·77

Add near multiples of 1 e.g.

6·34 + 0·99

e.g. *5·63 + 0·9*

Count on from large numbers e.g.

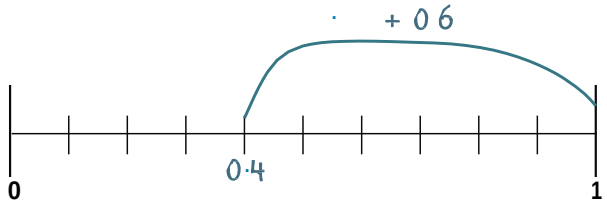
6834 + 3005 as 9834 + 5

Using number facts

Number bonds to 1 and to the next whole number

e.g. *5·7 + 0·3*

e.g. *0·4 + 0·6*



Add to the next 10 from a decimal number e.g.

7·8 + 2·2 = 10

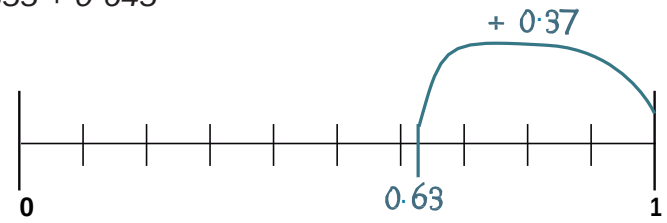
Year 6

Using number facts

Number bonds to 1 and to the next multiple of 1 e.g.

0·63 + 0·37

e.g. *2·355 + 0·645*

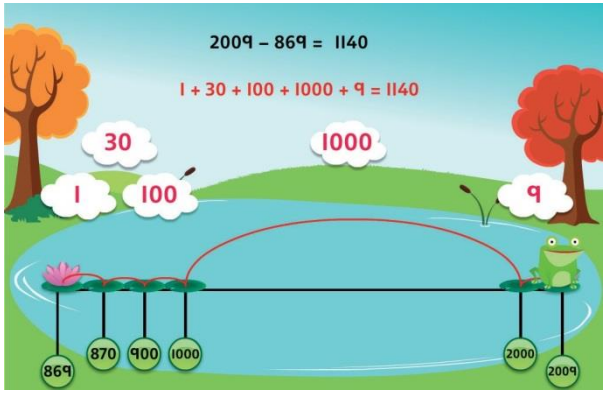


Add to the next 10 e.g.

4·62 + 5·38

	Year 5	Year 6
Written Addition	Expanded column addition for money leading to compact column addition for adding several amounts of money e.g. *£14·64 + £28·78 + £12·26* £14 60p 4p £28 70p 8p + £12 20p 6p £1 10p £55 60p 8p Compact column addition to add pairs of 5-digit numbers Continue to use column addition to add towers of several larger numbers Use compact addition to add decimal numbers with up to 2 decimal places e.g. *15·68 + 27·86* 15·68 + 27·86 11·1 43·54 Add related fractions e.g. *3/4 + 1/8 = 7/8*	Compact column addition for adding several large numbers and decimal numbers with up to 2 decimal places Compact column addition with money e.g. *£14·64 + £28·78 + £12·26* £14·64 + £28·78 £12·26 11·1 £55·68 Add unlike fractions, including mixed numbers e.g. *1/4 + 2/3= 11/12* e.g. *2 1/4 + 1 1/3 = 3 7/12*

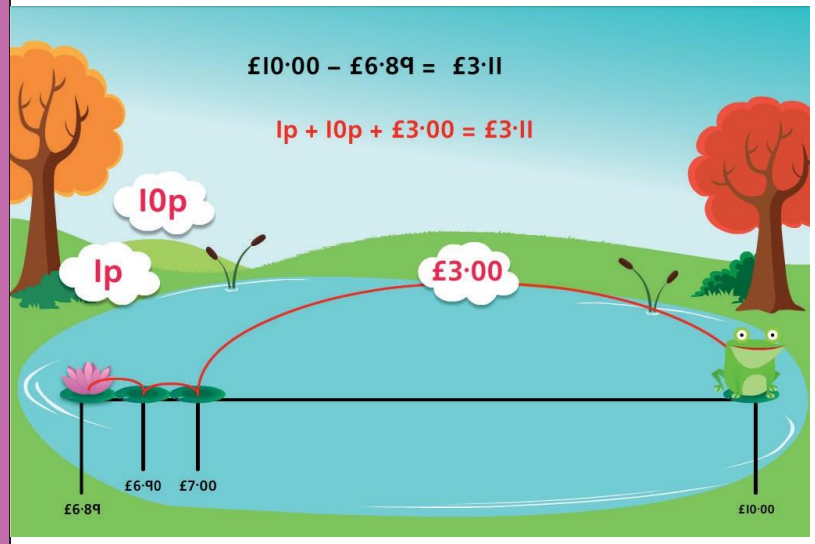
Mental Subtraction

Year 5	Year 6
Taking away Use place value to subtract decimals e.g. *4·58 – 0·08* e.g. *6·26 – 0·2* Take away multiples of powers of 10 e.g. *15 672 – 300* e.g. *4·82 – 2* e.g. *2·71 – 0·5* e.g. *4·68 – 0·02* Partitioning or counting back e.g. *3964 – 1051* e.g. *5·72 – 2·01* Subtract near multiples of 1, 10, 100, 1000, 10 000 or £1 e.g. *86 456 – 9999* e.g. *3·58 – 1·99* **Counting up** Find a difference between two numbers by counting up from the smaller to the larger e.g. *£12·05 – £9·59* e.g. *2009 – 869*  	**Taking away** Use place value to subtract decimals e.g. *7·782 – 0·08* e.g. *16·263 – 0·2* Take away multiples of powers of 10 e.g. *132 956 – 400* e.g. *686 109 – 40 000* e.g. *7·823 – 0·5* Partitioning or counting back e.g. *3964 – 1051* e.g. *5·72 – 2·01* Subtract near multiples of powers of 10 e.g. *360 078 – 99 998* e.g. *12·831 – 0·99*

Mental Subtraction

Year 5

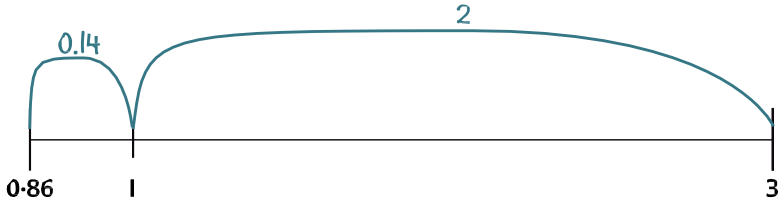
Find change using shopkeepers' addition
e.g. *Buy a toy for £6·89 using £10·00*



Find a difference between two amounts of money by counting up

Using number facts

Derived facts from number bonds to 10 and 100 e.g.
2 – 0·45 using 45 + 55 = 100
e.g. *3 – 0·86 using 86 + 14 = 100*

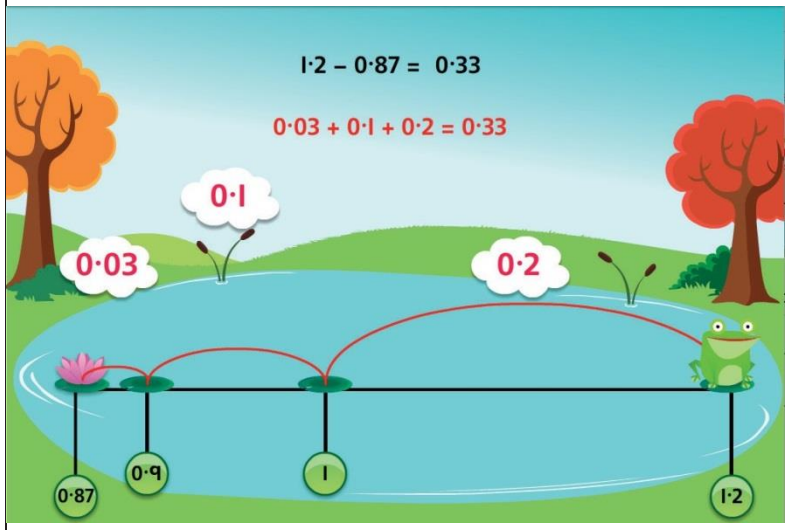


Number bonds to £1, £10 and £100 e.g.
£4·00 – £3·86
e.g. *£100 – £66 using 66 + 34 = 100*

Year 6

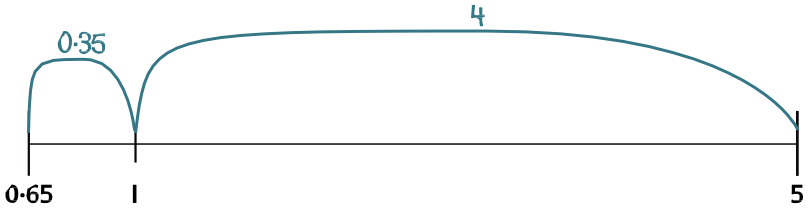
Counting up

Find a difference between two decimal numbers by counting up from the smaller to the larger
e.g. *1·2 – 0·87*



Using number facts

Derived facts from number bonds to 10 and 100
e.g. *0·1 – 0·075 using 75 + 25 = 100*
e.g. *5 – 0·65 using 65 + 35 = 100*



Number bonds to £1, £10 and £100 e.g.
£7·00 – £4·37
e.g. *£100 – £66·20 using 20p + 80p = £1 and £67 + £33 = £100*

Written Subtraction

Year 5

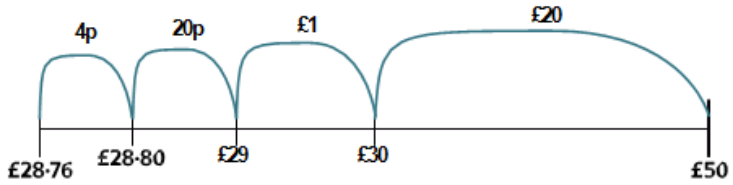
Compact column subtraction for numbers with up to 5 digits

e.g. *16 324 – 8516*

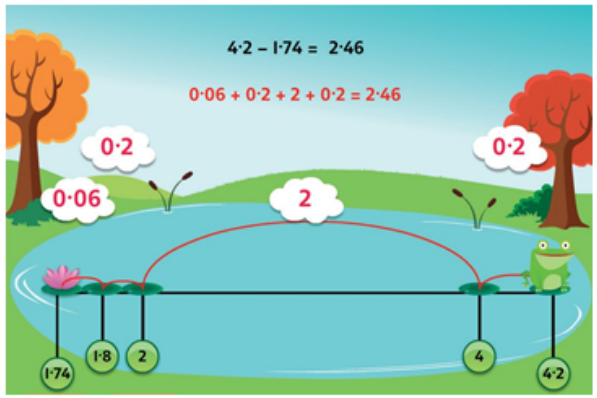
	0	15	13	14
	~~1~~	~~6~~	~~3~~	~~2~~	~~4~~
–		8	5	1	6
		7	8	0	8

Continue to use counting up subtraction for subtractions involving money, including finding change

e.g. *£50 – £28·76*



Use counting up subtraction to subtract decimal numbers



e.g. *4·2 – 1·74*

Subtract related fractions

e.g. *3/4 – 1/8 = 5/8*

NB Counting up subtraction provides a default method for ALL children

Year 6

Compact column subtraction for large numbers

e.g. *34 685 – 16 458*

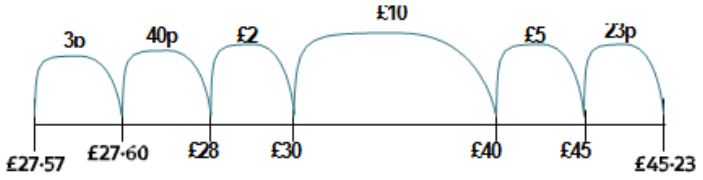
	2	14		7	15
	~~3~~	~~4~~	6	~~8~~	~~5~~
–	1	6	4	5	8
	1	8	2	2	7

Use counting up for subtractions where the larger number is a multiple or near multiple of 1000 or 10 000

Use counting up subtraction when dealing with money

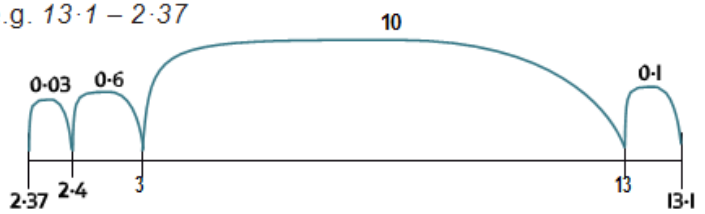
e.g. *£100 – £78·56*

e.g. *£45·23 – £27·57*



Use counting up subtraction to subtract decimal numbers

e.g. *13·1 – 2·37*



Subtract unlike fractions, including mixed numbers

e.g. *3/4 – 1/3 = 5/12*

e.g. *2 3/4 – 1 1/3 = 1 5/12*

NB Counting up subtraction provides a default method for ALL children