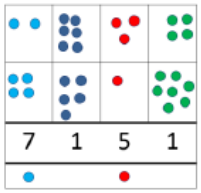
Year 4 calculation guidance

+ Addition +

More Sum Altogether Add Plus Total

Methods from Year 3 to be continued in Year 4: Use concrete objects to combine Counting on using a number line.

Add ones, tens, hundreds and thousands to a four-digit number



Children can draw a pictoral representation of the columns and place value counters to further support their learning and understandina.

Compact addition (integers only) with numbers up to four digits

e.g.

7648
+ 1486
9134
1 1 1

Expanded addition may be used for decimals in real contexts e.g. money and length.

£11.35+ £12.43=

£10 + £1 + 30p + 5p +
£10 + £2 + 40p + 3p
£20 + £3 + 70p + 8p = £23.78

- Subtraction -

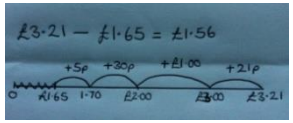
minus Subtract take away less than difference between

Methods from Year 3 to be continued in Year 4: Use concrete apparatus, part-part whole, number line. Count back on a number line.

Subtract ones, tens, hundreds, and thousands from a four-digit number.

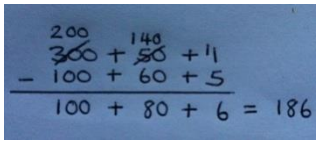
Number line method (2, 3, 4 digit numbers, extending to decimals in a real context)

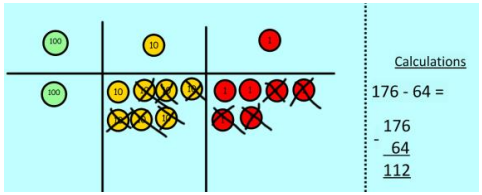
e.g.



Expanded subtraction

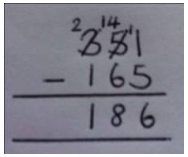
e.g. 354 - 165





Use base 10 or place value counters alongside the written calculation to help to show working.

Compact subtraction (regrouping)



× Multiplication ×

Multiply times lots of groups of multiple of product

Methods from Year 3 to be continued in Year 4: Understanding that multiplication is the inverse of division, repeated addition, expanded column method

ALL times tables facts to 12 x 12 should be known by end of year 4 including multiplying by 0 and 1.

Children should learn to multiply three numbers together.

4 x 6 x 3=

4 x 6= 24 x 3= 72

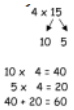
Grid method TU x U or HTU X U

This can be used to help children understand exactly what you are multiplying.

e.g. 245 x 6

x	200	40	5	Total
6	1200	240	30	1470

Partitioning



Short Multiplication

6 x 23 =

23
× 6
138
1 1

Show the carrying below.

÷ Division ÷

Share equally group equally divide remainder factor

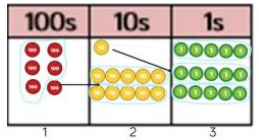
Methods from Year 3 to be continued in Year 4: Using number lines to support repeated subtraction.

Focus on understanding, representing and remembering times tables facts for ALL times tables up to 12 x12 including division facts.

4x8=32. 8x4=32, 32÷4=8, 32÷8=4

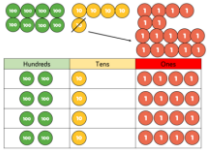
Start with place value counters

615 ÷ 5



1. Make 615 with place value counters.
2. How many groups of 5 hundreds can you make with 6 hundred counters?
3. Exchange 1 hundred for 10 tens.
4. How many groups of 5 tens can you make with 11 ten counters?
5. Exchange 1 ten for 10 ones.
6. How many groups of 5 ones can you make with 15 ones?

Pictorial



Abstract