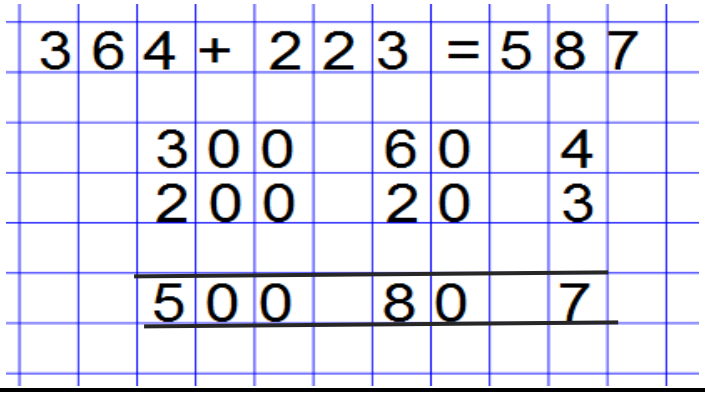
Marlcliffe Calculation Policy (Updated 2014)

This policy will outline method taught throughout KS2 in line with the new National Curriculum. Although year groups are specified the strategy taught will depend on the stage and ability of the child.

Addition

Year 3

Expanded Column (Up to 3 digit + 3 digit)



Largest number first

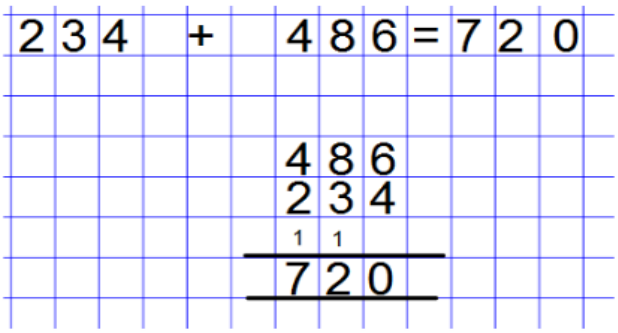
Leave a line before answer - important in later years

Year 4

Expanded Column (Up to 4 digit + 4 digits)

Year 5

Column addition (more than 4 digits)



Largest number first

Carry in the gap - ensuring the numbers are written smaller.

Year 6 - Column addition - including numbers with up to 3 decimal places (23.342)

Subtraction

Children in year 3 will still also use informal methods (counting on a number line) to support mental calculation

Year 3

Expanded Column

(up to 3 digits - 3 digits)
Intially no carry

754 + 421 = 333

	H	T	U
	700	50	4
	400	20	1
	300	30	3

Start from units column

Year 4

Expanded Column

(up to 4 digits - 4 digits)
Including carry

754 - 436 = 318

	700	~~50~~ 40	14
	400	30	6
	300	10	8

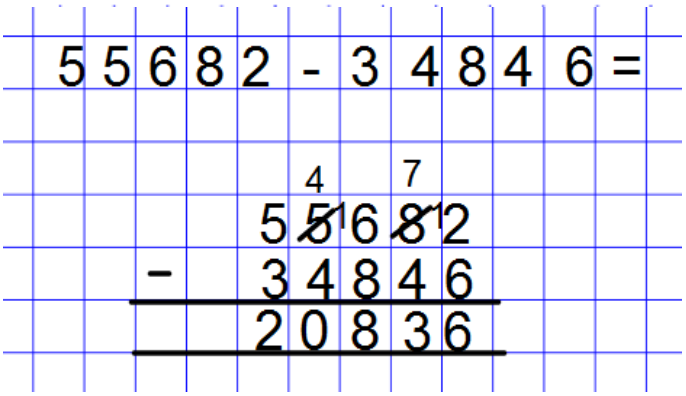
Start from units column

4-6 can't be done so borrow 10 from tens column leaving 40 and making 4 in the units to 14

Year 5

Column Method

(more than 4 digits - 4 digits)



Start from units column

4 - 6 can't do it
borrow 10 from tens column
leaving 4 (tens) and making
4 in the units to 14

Year 6

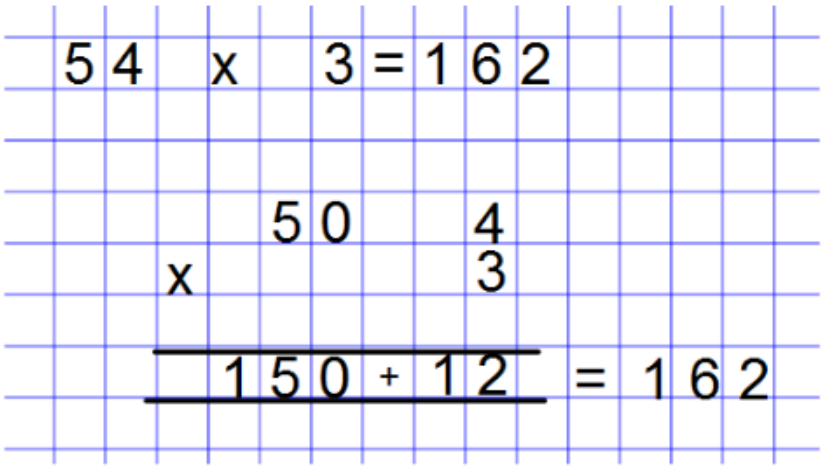
Same as year 5 - including numbers with up to 3 decimal places (23.543)

Multiplication

Year 3

- Learn x3, x4, x8 to x12
- Consolidate x2, x5, x10

Expanded Column (2 digit x 1 digit)



Start from units column

Leave a line important in later methods

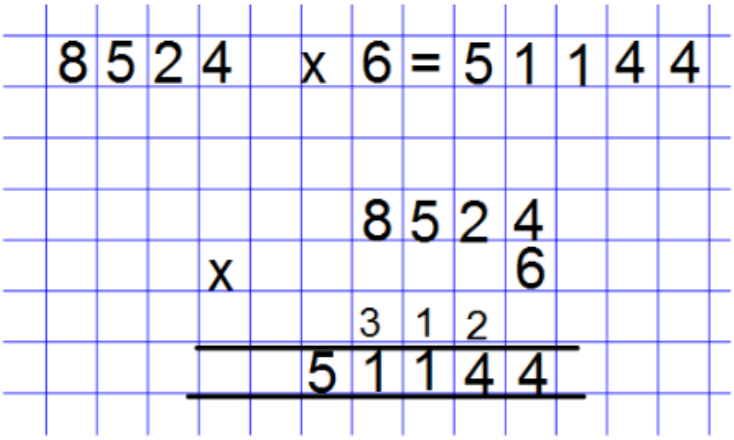
Year 4

- Learn x6, x7, x9 to 12x
- Consolidate previous years

Expanded Column - same as Year 3 up to 3 digits multiplied by 1 digit

Year 5

Short Multiplication (Up to 4 digits x 1)

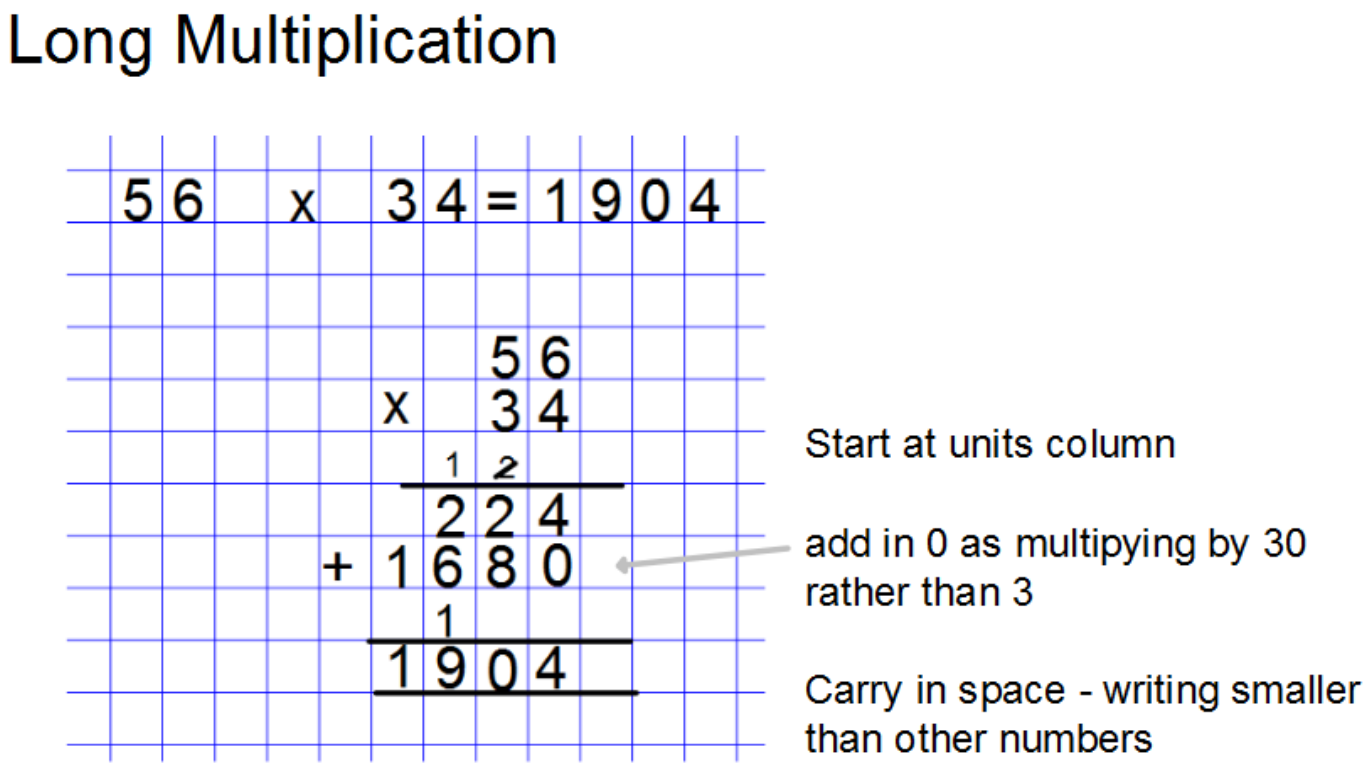


Start at units column

Carry in space - writing smaller than other numbers

Year 5

Short multiplication for multiplying by 1 digit including decimal numbers.



Year 6

- Same as year 5

Division

Year 3

- No formal written method
- Mental corresponding division facts to multiplication

3 x 4 = 12 12 ÷ 4 = 3

Including applying knowledge of place value

120 ÷ 4 = 30

Year 4 (Autumn + Spring)

- No formal written method
- Mental corresponding division facts to multiplication

3 x 4 = 12 12 ÷ 4 = 3

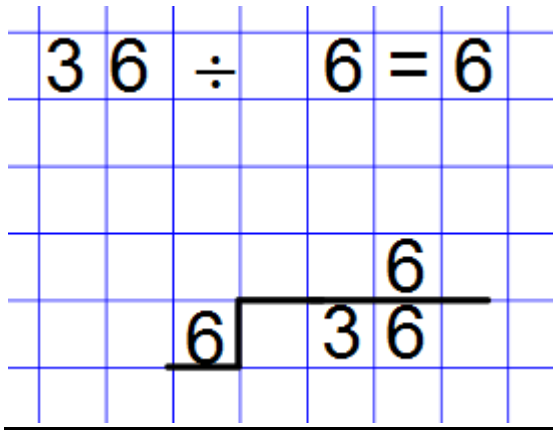
Including applying knowledge of place value

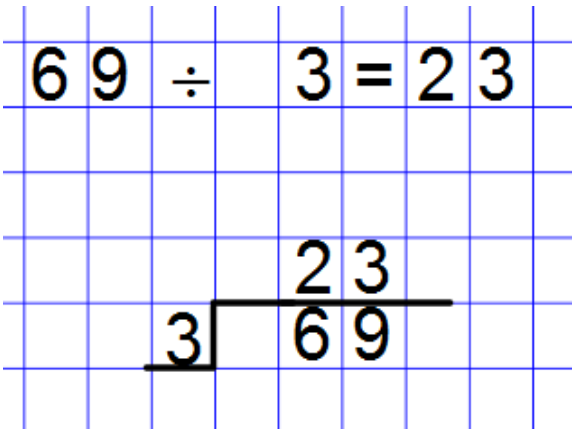
1200 ÷ 4 = 300

Year 4 (Summer term)

- Use short division layout in preparation for Upper KS2

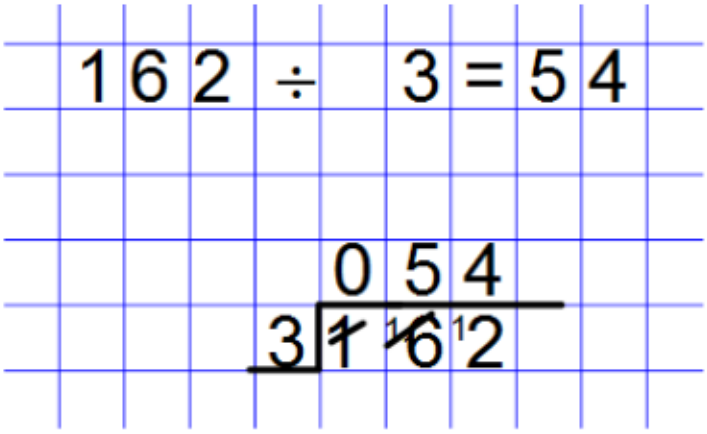
Including larger (No carrying)





Year 5

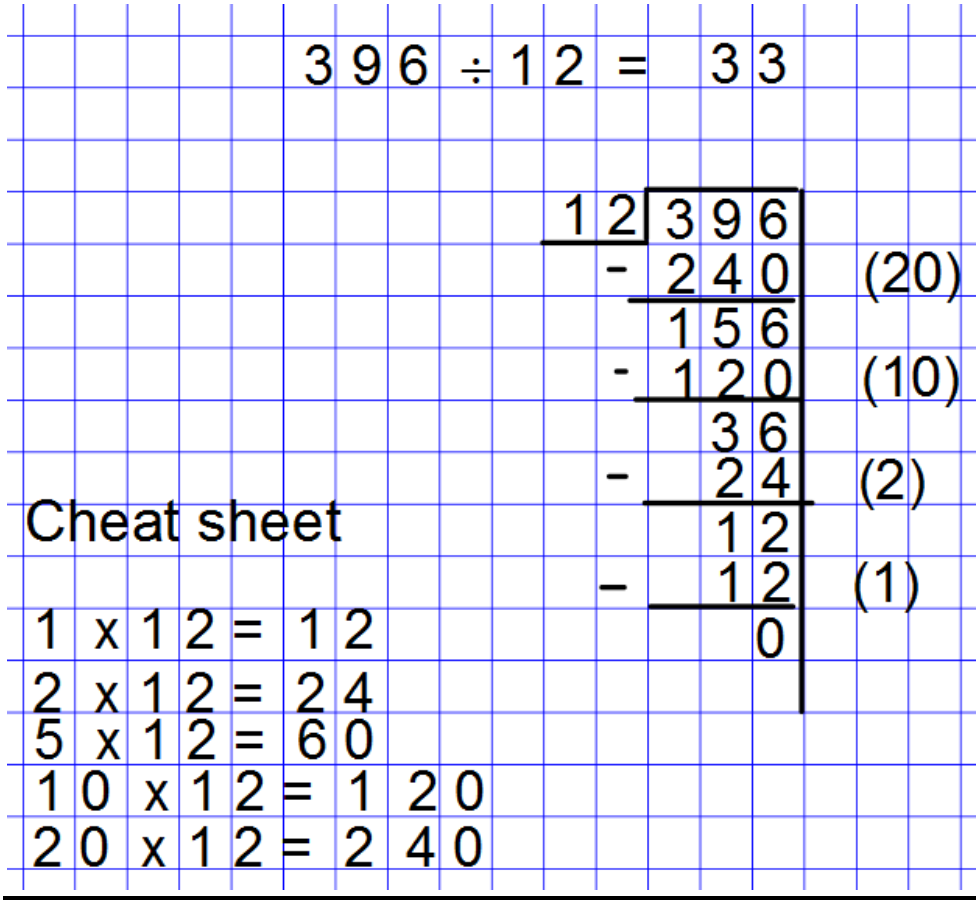
Short Division



Up to 4 digits ÷ 1 digit

Including remainders

For dividing by 2 digit numbers



Year 6

Same as Year 5 – including decimal numbers