

KS2 Division

In Key Stage Two, pupils are taught to link division to known multiplication facts. It is therefore essential that times tables facts to 12x are fluent. In years 3 and 4, children will start by partitioning numbers into hundreds, tens and ones to divide, and then recombine. Children will learn division by using known multiplication facts, grouping sets of amounts and moving onto formal methods such as short division (one digit divisor) and long division (two digit divisor in Year 5). Children will need repeated practical support alongside learning formal methods.

Concrete

There are ... groups of 3 in ...
... $\div 3 =$



$$2 \times 3 = 6$$

$$6 \div 3 = 2$$

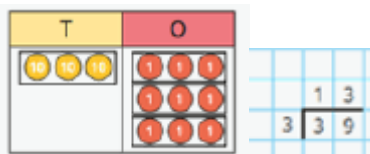
Sharing familiar objects and linking to commutativity



Grouping counters into equal parts

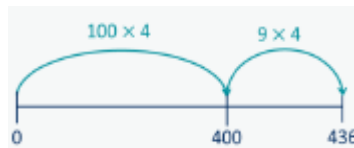


Dienes to group ($96 \div 4$)

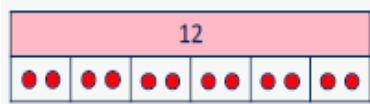


Place value counters alongside formal methods

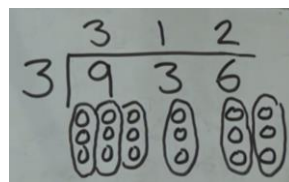
Pictorial



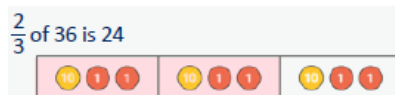
Number lines drawn in books.



Bar models drawn in books.



Short division with counters drawn in books.



Bar models for division with whole numbers and fractions

Abstract

$$300 \div 3 = 100$$

$$120 \div 3 = 40$$

Using known facts

1	3	3
4	5	3

Short division with whole numbers and decimals

1	2	2	3	r2
4	4	8	9	4

Short division with remainders.

0	3	6
12	4	3
	3	6
	7	2
	7	2
		0

(12 $\times$ 30)

(12 $\times$ 6)

Long division by chunking. Chn write out the times tables when the divisor is over 12.

$$\begin{array}{r} 31 \\ 17 \overline{) 540} \\ \underline{51} \\ 30 \\ \underline{30} \\ 0 \end{array}$$

$$\begin{array}{l} 17 \times 1 = 17 \\ 17 \times 2 = 34 \\ 17 \times 3 = 51 \\ 17 \times 4 = 68 \end{array}$$

Long division with subtraction.

Key language

I notice that, I can see that...

To divide 71 by 9 I need to think of the 9 times tables. I know that 7×9 is 63. So there are 7 groups with a remainder of 8.

I can't share this number equally so there must be a remainder.

Dividend

Quotient

$$361 \div 5 = 72 \text{ R}1$$

Divisor

Remainder