

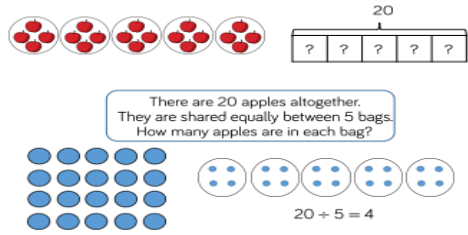
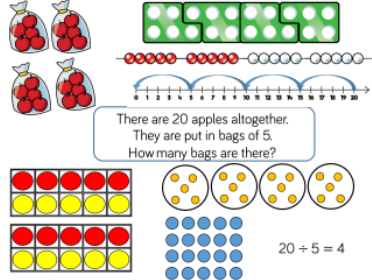
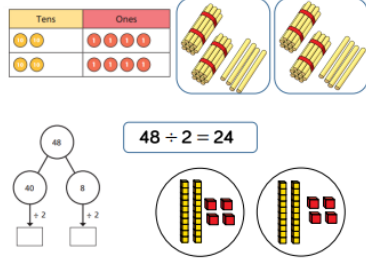
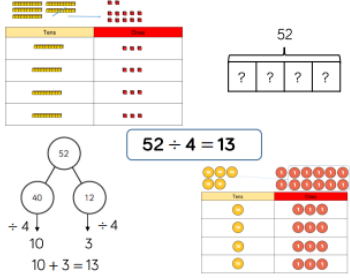
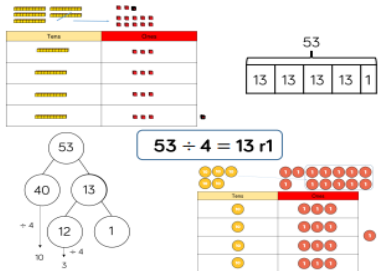


South Harringay School

Calculation Guidance

Division

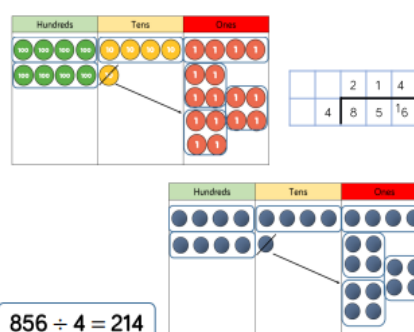
EYFS	
Method	Example
Share objects fairly. “one for you, one for you”	
Year 1	
Method	Example
Solve 1-step problems using multiplication (sharing). Children solve problems by sharing amounts into equal groups. Children use concrete and pictorial representations to solve problems. Children are not expected to record division formally.	There are 20 apples altogether. They are shared equally between 5 bags. How many apples are in each bag?
Solve 1-step problems using division (grouping). Children solve problems by grouping and counting the number of groups.	There are 20 apples altogether. They are put in bags of 5. How many bags are there?
Divide 2-digits by 1-digit (sharing with no exchange) Children can use manipulatives that allow them to partition into tens and ones.	

Year 2	
Method	Example
Solve 1-step problems using multiplication (sharing). Children solve problems by sharing amounts into equal groups. Children are introduced to the division symbol.	 There are 20 apples altogether. They are shared equally between 5 bags. How many apples are in each bag? $20 \div 5 = 4$
Solve 1-step problems using division (grouping). Children solve problems by grouping and counting the number of groups.	 There are 20 apples altogether. They are put in bags of 5. How many bags are there? $20 \div 5 = 4$
Divide 2-digits by 1-digit (sharing with no exchange). Children can use manipulatives that allow them to partition into tens and ones.	 $48 \div 2 = 24$
Year 3	
Method	Example
Divide 2-digits by 1-digit (sharing with exchange). When dividing numbers involving an exchange, children can use resources to exchange one ten for ten ones. Starting with the equipment outside the place value grid will highlight the sharing of the tens and ones equally between the rows.	 $52 \div 4 = 13$
Divide 2-digits by 1-digit (sharing with remainders). When dividing numbers with remainders, children can use Base 20 and place value counters to exchange one ten for ten ones. Starting with the equipment outside the place value grid will highlight the remainders.	 $53 \div 4 = 13 \text{ r}1$

Year 4	
Method	Example
Divide 2-digits by 1-digit (sharing with exchange). When dividing numbers involving an exchange, children can use resources to exchange one ten for ten ones. Starting with the equipment outside the place value grid will highlight the sharing of the tens and ones equally between the rows.	$52 \div 4 = 13$
Divide 2-digits by 1-digit (grouping). When using the short division method, children use grouping. Starting with the largest place value, they group by the divisor. Language is important, "How many groups of 4 tens can we make?" and "How many groups of 4 ones can we make?". Remainders can also be seen as they are left ungrouped.	$52 \div 4 = 13$
Divide 3-digits by 1-digit (sharing). Children can continue to use place value counters to share 3-digit numbers into equal groups. Children should start with the equipment outside the place value grid before sharing the hundreds, tens and ones equally between the rows. This method can also help to highlight remainders.	$844 \div 4 = 211$
Year 5	
Method	Example
Divide 2-digits by 1-digit (grouping). When using the short division method, children use grouping. Starting with the largest place value, they group by the divisor. Language is important, "How many groups of 4 tens can we make?" and "How many groups of 4 ones can we make?". Remainders can also be seen as they are left ungrouped.	$52 \div 4 = 13$

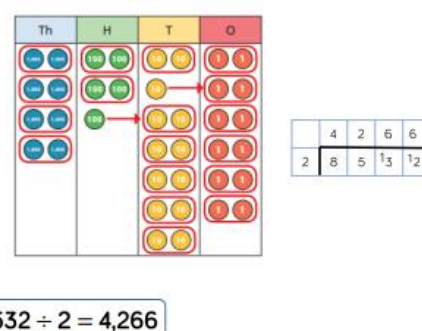
Divide 3-digits by 1-digit (grouping).

Children can continue to use grouping to support their understanding of short division when dividing a 3-digit number by a 1-digit number.



Divide 4-digits by 1-digit (grouping).

Children should be encouraged to move away from the concrete and pictorial when dividing numbers with multiple exchanges.



Year 6

Method

Divide multi digits by 2-digits (short division).

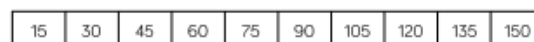
When children begin to divide up to 4-digits by 2-digits, written methods become the most accurate as concrete and pictorial representations become less effective.

Example



$$432 \div 12 = 36$$

$$7,335 \div 15 = 489$$



Divide multi-digits by 2-digits (long division).

Children can also divide by 2-digit numbers using long division.

Children can write out multiples to support their calculations with larger remainders.

		0	3	6
1	2	4	3	2
		3	6	0
			7	2
			7	2
				0

$12 \times 1 = 12$
 $12 \times 2 = 24$
 $12 \times 3 = 36$
 $12 \times 4 = 48$
 $12 \times 5 = 60$
 $12 \times 6 = 72$
 $12 \times 7 = 84$
 $12 \times 8 = 96$
 $12 \times 9 = 108$
 $12 \times 10 = 120$

$$432 \div 12 = 36$$

$$7,335 \div 15 = 489$$

	0	4	8	9
15	7	3	3	5
-	6	0	0	0
	1	3	3	5
-	1	2	0	0
		1	3	5
-		1	3	5
				0

$1 \times 15 = 15$
 $2 \times 15 = 30$
 $3 \times 15 = 45$
 $4 \times 15 = 60$
 $5 \times 15 = 75$
 $10 \times 15 = 150$

Divide multi digits by 2-digits (long division).

When a remainder is left at the end of a calculation, children can either leave it as a remainder or convert it into a fraction. This will depend on the context of the question.

Children can also answer questions where the quotient needs to be rounded according to the context.

$$372 \div 15 = 24 \text{ r}12$$

		2	4	r	1	2
1	5	3	7	2		
		3	0	0		
			7	2		
			6	0		
			1	2		

$1 \times 15 = 15$
 $2 \times 15 = 30$
 $3 \times 15 = 45$
 $4 \times 15 = 60$
 $5 \times 15 = 75$
 $10 \times 15 = 150$

		2	4	$\frac{4}{5}$
1	5	3	7	2
		3	0	0
			7	2
			6	0
			1	2

$$372 \div 15 = 24 \frac{4}{5}$$