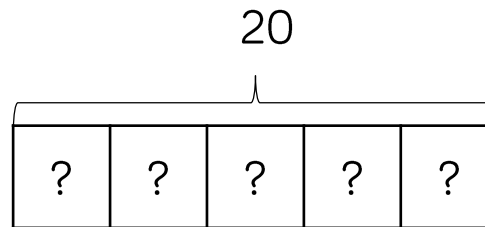| Skill: Solve 1-step problems using multiplication (sharing)	Year: 1/2

20

? ? ? ? ?
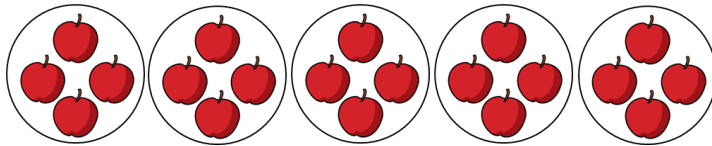
There are 20 apples altogether.
They are shared equally between 5 bags.
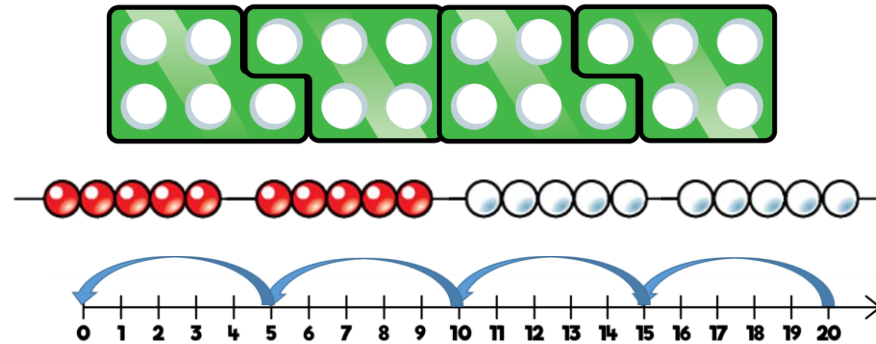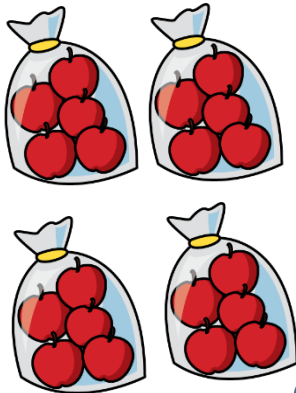How many apples are in each bag?
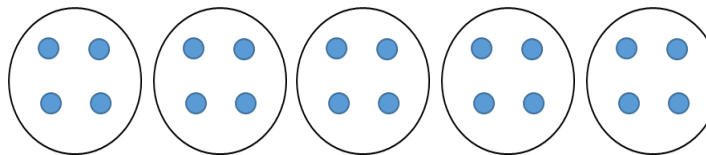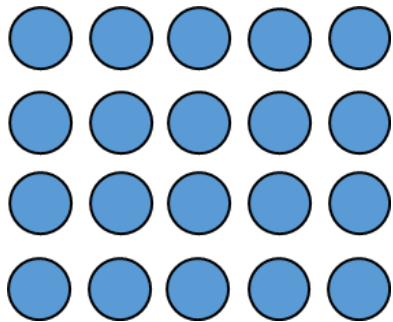
$20 \div 5 = 4$

Children solve problems by sharing amounts into equal groups.

In Year 1, children use concrete and pictorial representations to solve problems. They are not expected to record division formally.
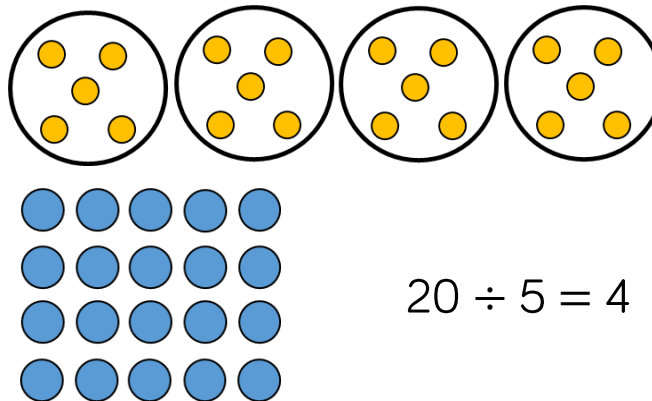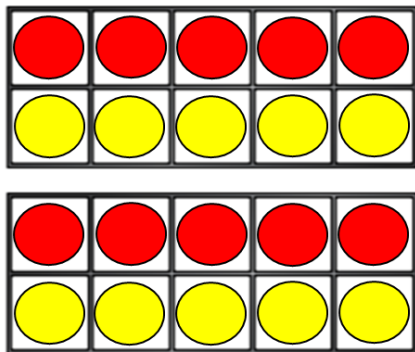
In Year 2, children are introduced to the division symbol.

Skill: Solve 1-step problems using division (grouping)	Year: 1/2

There are 20 apples altogether.
They are put in bags of 5.
How many bags are there?

$20 \div 5 = 4$

Children solve problems by grouping and counting the number of groups. Grouping encourages children to count in multiples and links to repeated subtraction on a number line. They can use concrete representations in fixed groups such as number shapes which helps to show the link between multiplication and division.
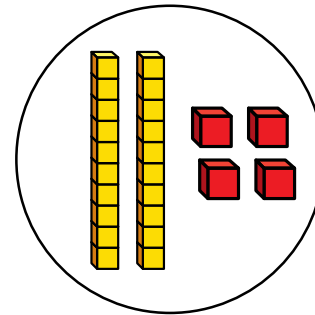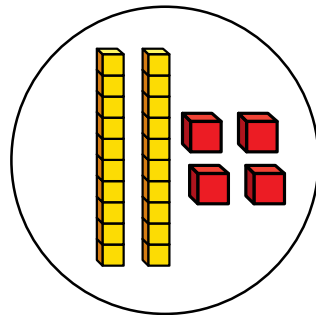
Skill: Divide 2-digits by 1-digit (sharing with no exchange)	Year: 1/2

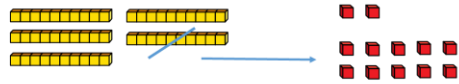| Tens	Ones
10 10	1 1 1 1
10 10	1 1 1 1

$$48 \div 2 = 24$$

48
40   8
÷ 2   ÷ 2
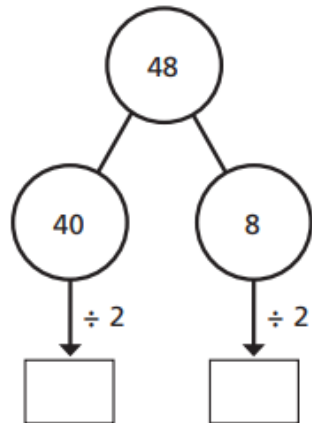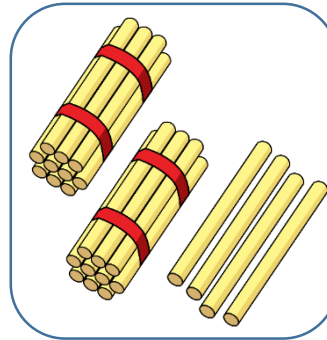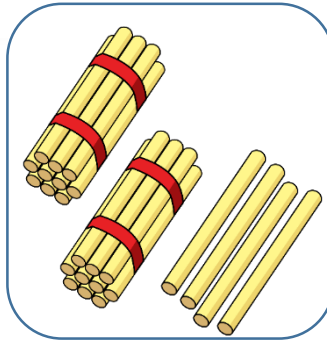
When dividing larger numbers, children can use manipulatives that allow them to partition into tens and ones.

Straws, Base 10 and place value counters can all be used to share numbers into equal groups.

Part-whole models can provide children with a clear written method that matches the concrete representation.

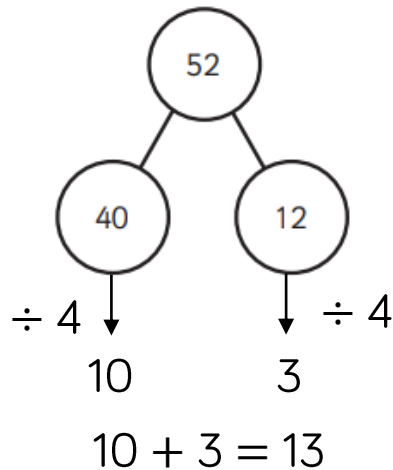| Skill: Divide 2-digits by 1-digit (sharing with exchange)	Year: 3/4

Tens	Ones

52

?	?	?	?

$$52 \div 4 = 13$$

52

40   12

÷ 4   ÷ 4

10   3

10 + 3 = 13

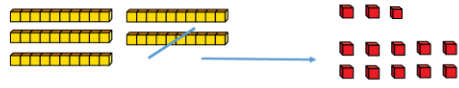| Tens	Ones
10	1 1 1
10	1 1 1
10	1 1 1
10	1 1 1

When dividing numbers involving an exchange, children can use Base 10 and place value counters to exchange one ten for ten ones. Children should start with the equipment outside the place value grid before sharing the tens and ones equally between the rows.
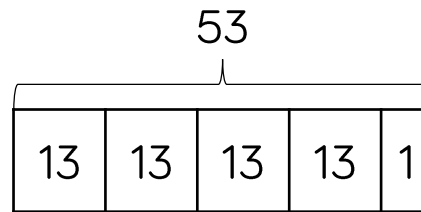
Flexible partitioning in a part-whole model supports this method.

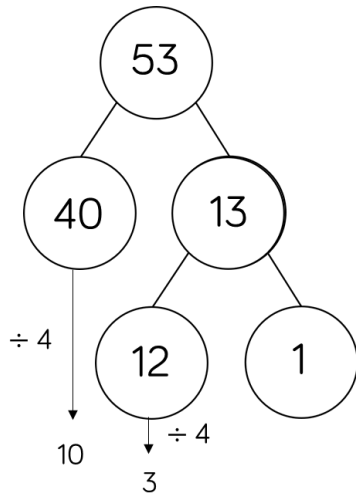| Skill: Divide 2-digits by 1-digit (sharing with remainders)	Year: 3/4

Tens	Ones

53

13	13	13	13	1

53 ÷ 4 = 13 r1

When dividing numbers with remainders, children can use Base 10 and place value counters to exchange one ten for ten ones.
Starting with the equipment outside the place value grid will highlight remainders, as they will be left outside the grid once the equal groups have been made.
Flexible partitioning in a part-whole model supports this method.

53
40   13
÷ 4   12   1
10   ÷ 4
       3

Tens	Ones

Skill: Divide 2-digits by 1-digit (grouping)	Year: 4/5

Tens | **Ones**

$$52 \div 4 = 13$$

		1	3
4	5	^{1}2	

Tens | **Ones**

When using the short division method, children use grouping. Starting with the largest place value, they group by the divisor.
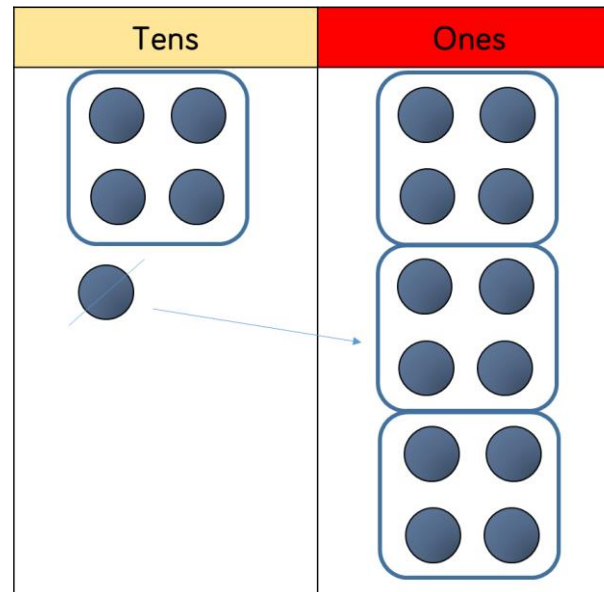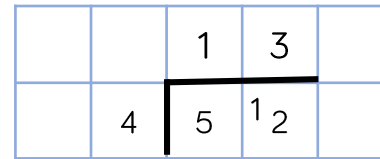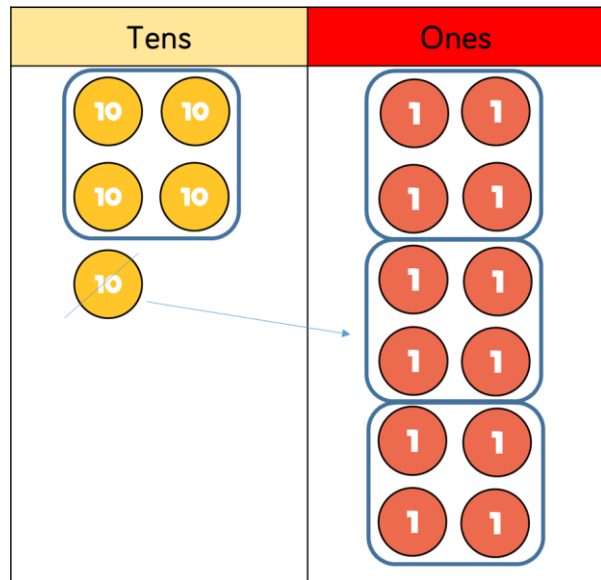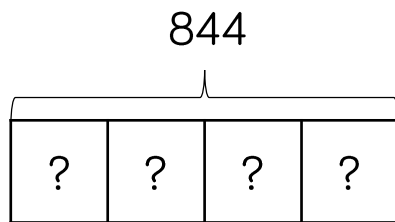
Language is important here. Children should consider 'How many groups of 4 tens can we make?' and 'How many groups of 4 ones can we make?'

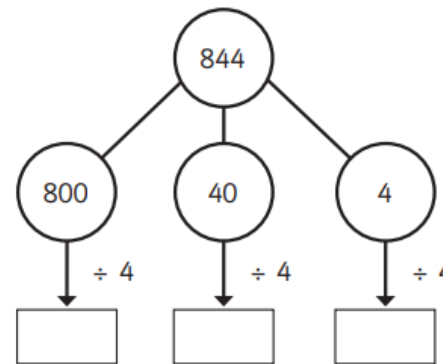Remainders can also be seen as they are left ungrouped.

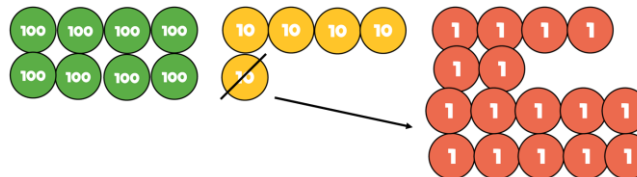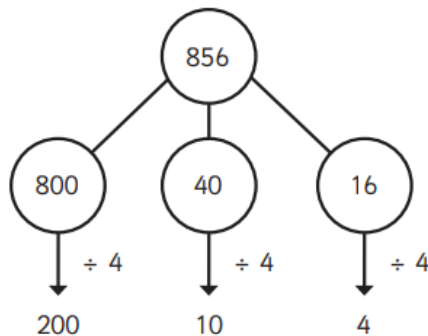| Skill: Divide 3-digits by 1-digit (sharing)	Year: 4

$$844 \div 4 = 211$$

844

?	?	?	?

H	T	O
100 100	10	1
100 100	10	1
100 100	10	1
100 100	10	1

844

800 → ÷ 4

40 → ÷ 4

4 → ÷ 4

$$844 \div 4 = 211$$

856

800 → ÷ 4 → 200

40 → ÷ 4 → 10

16 → ÷ 4 → 4

Hundreds	Tens	Ones
100 100	10	1 1 1 1
100 100	10	1 1 1 1
100 100	10	1 1 1 1
100 100	10	1 1 1 1

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. Flexible partitioning in a part-whole model supports this method.