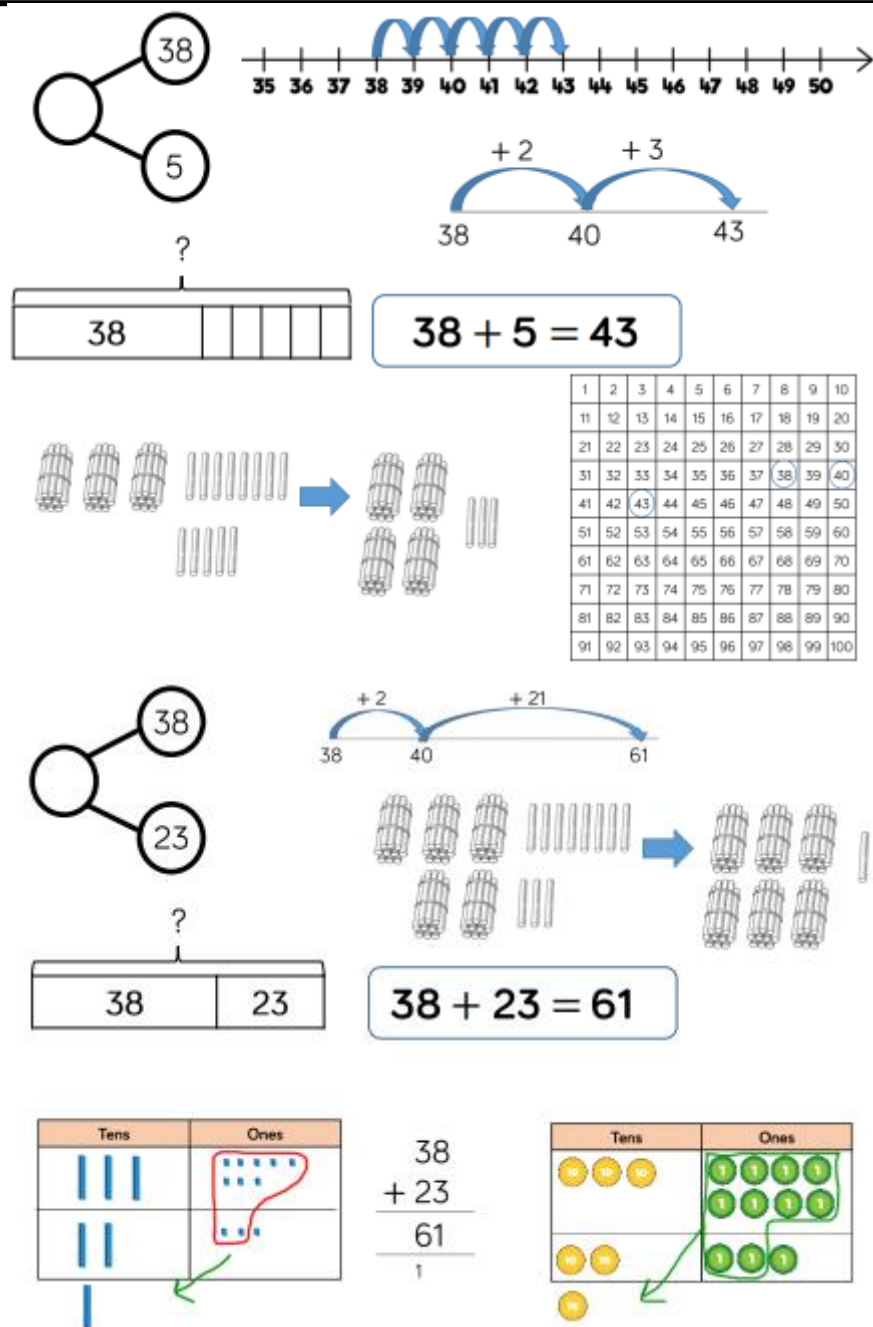
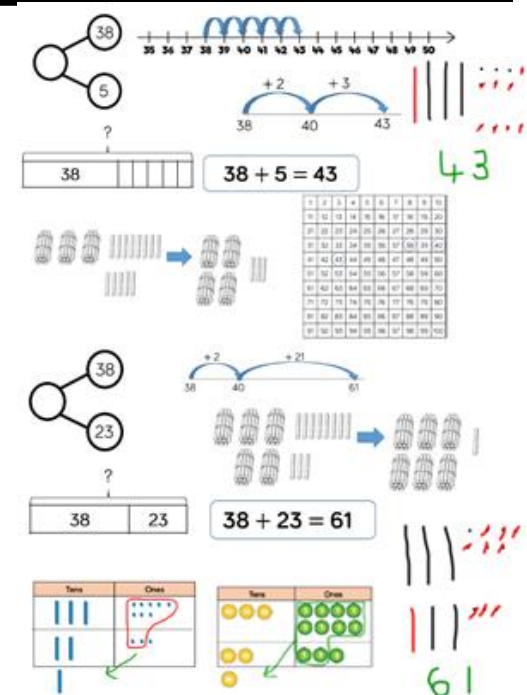


Year 3 Addition policy (Adding numbers to 100)



Prior Learning



When adding single digits to a 2 digit number, children should be encouraged to count on from the larger number.

They should also apply their knowledge of number bonds to add more efficiently e.g $8 + 5 = 13$ so $35 + 8 = 43$

Manipulatives should be used to support children in finding the number bond to 10.

Encourage children to use the formal column method when calculating (alongside manipulatives where necessary)

Children can also use a blank number line to count on to find the total. Encourage them to jump to multiples of 10 to become more efficient.

Year 3 Addition policy (Add numbers with up to 3 digits)

Diagram illustrating the addition of 265 and 164 using various manipulatives:

- A tree diagram showing 265 and 164 branching from a question mark.
- A box diagram showing 265 and 164 with a question mark above them.
- A box diagram showing 265 and 164 with a question mark to the right.
- The equation $265 + 164 = 429$ in a box.
- A place value grid showing the addition of 265 and 164, resulting in 429. The grid has columns for Hundreds, Tens, and Ones. The Tens column is highlighted with a red box.
- A place value grid showing the addition of 265 and 164, resulting in 429. The grid has columns for Hundreds, Tens, and Ones. The Tens column is highlighted with a green box.

Prior learning

Diagram illustrating prior learning for addition using various manipulatives:

- A number line showing the addition of 38 and 5, resulting in 43. The number line has arrows indicating the addition of 2 and 3.
- A box diagram showing 38 and 5 with a question mark above them.
- A box diagram showing 38 and 5 with a question mark to the right.
- The equation $38 + 5 = 43$ in a box.
- A place value grid showing the addition of 38 and 5, resulting in 43. The grid has columns for Tens and Ones. The Ones column is highlighted with a red box.
- A place value grid showing the addition of 38 and 5, resulting in 43. The grid has columns for Tens and Ones. The Ones column is highlighted with a green box.

Dienes and place value counters are the most effective manipulatives when adding numbers up to 3 digits.

Ensure children write out their calculation alongside any concrete resources so they can see the links to the written column method.

Plain counters on a place value grid can also be used to support learning.

Year 3 Subtraction policy

Diagram illustrating the subtraction of 273 from 435 using a tree diagram, a number line, and place value counters.

Tree diagram: 435 is split into 273 and a question mark. The number line shows 435 and 273, with a question mark indicating the difference.

Equation: $435 - 273 = 262$

Place value counters: A grid showing Hundreds, Tens, and Ones. The Hundreds column has 4 blue squares, Tens has 3 blue rods, and Ones has 5 red cubes. The subtraction process is shown by crossing out 2 hundreds, 7 tens, and 3 ones, leaving 2 hundreds, 6 tens, and 2 ones.

Prior learning

Diagram illustrating various methods for subtraction, including number lines, place value counters, and the written column method.

Methods shown include:

- Number line: $14 - 6 = 8$
- Place value counters: $14 - 6 = 8$
- Written column method: $14 - 6 = 8$
- Number line: $65 - 28 = 37$
- Place value counters: $65 - 28 = 37$
- Written column method: $65 - 28 = 37$

Dienes and place value counters are the most effective manipulative when subtracting numbers with up to 3 digits.

Ensure children write out their calculation alongside any concrete resources so they can see the links to the written column method.

Plain counters on a place value grid can also be used to support learning.

Year 3 Multiplication policy (2 digit numbers by 1 digit numbers)

The diagram illustrates the expanded column method for $34 \times 5 = 170$. It includes a place value chart with Hundreds, Tens, and Ones columns, a grid of 100 small squares, and a multiplication table showing the steps: $4 \times 5 = 20$ (2 tens) and $30 \times 5 = 150$ (15 tens), which are then combined to get 170.

	H	T	O
		3	4
$\times$			5
		2	0
$+$	1	5	0
	1	7	0

$34 \times 5 = 170$

	H	T	O
		3	4
$\times$			5
		2	0
	1	7	0

The diagram illustrates prior learning activities for multiplication. It includes bags of apples, a dot grid, a number line, and a multiplication table showing the steps: $4 \times 5 = 20$ (2 tens) and $30 \times 5 = 150$ (15 tens), which are then combined to get 170.

One bag holds 5 apples.
How many apples do 4 bags hold?

$5 + 5 + 5 + 5 = 20$
 $4 \times 5 = 20$
 $5 \times 4 = 20$

Prior learning

Teachers may decide to first look at the expanded column method before moving on to the short multiplication method.

The place value counters should be used to support the understanding of the method rather than supporting the multiplication as children should use their times table knowledge.

Year 3 Multiplication policy (3 digit numbers by 1 digit numbers)

The diagram illustrates the multiplication of 245 by 4 using place value blocks and a written method.

Place Value Blocks: The blocks are organized into three columns: Hundreds (green), Tens (yellow), and Ones (red). There are 2 hundreds blocks, 4 tens blocks, and 5 ones blocks. A box highlights the 4 tens blocks and the 5 ones blocks, with an arrow pointing to the written method.

Written Method:

	H	T	O
	2	4	5
x			4
	9	8	0
	1	2	

$245 \times 4 = 980$

Place Value Counters: The counters are organized into three columns: Hundreds (green), Tens (yellow), and Ones (red). There are 2 hundreds counters, 4 tens counters, and 5 ones counters. A box highlights the 4 tens counters and the 5 ones counters, with an arrow pointing to the written method.

The diagram illustrates prior learning for multiplication using bags of apples and place value blocks.

Bags of Apples: Four bags of apples are shown. A box states: "One bag holds 5 apples. How many apples do 4 bags hold?"

Place Value Blocks: The blocks are organized into three columns: Hundreds (green), Tens (yellow), and Ones (red). There are 2 hundreds blocks, 4 tens blocks, and 5 ones blocks. A box highlights the 4 tens blocks and the 5 ones blocks, with an arrow pointing to the written method.

Written Method:

	H	T	O
	2	4	5
x			4
	9	8	0
	1	2	

$245 \times 4 = 980$

Place Value Counters: The counters are organized into three columns: Hundreds (green), Tens (yellow), and Ones (red). There are 2 hundreds counters, 4 tens counters, and 5 ones counters. A box highlights the 4 tens counters and the 5 ones counters, with an arrow pointing to the written method.

Prior learning:

5 + 5 + 5 + 5 = 20
4 × 5 = 20
5 × 4 = 20

When moving to 3 digit by 1 digit multiplication, encourage children to move towards the short, formal written method.

Dienes and place value counters continue to support the understanding of the written method.

Limit the number of exchanges needed in the questions and move children away from resources when multiplying larger numbers.

Year 3 Division policy (Divide 2 digits by 1 digits – sharing with exchange)

The diagram illustrates the division of 52 by 4 using place value counters and a part-whole model.

Place Value Counters: A table with two columns: Tens and Ones. The Tens column contains four rows of ten yellow counters each. The Ones column contains four rows of two red counters each. To the right, a separate set of 52 counters (5 tens rods and 2 ones units) is shown.

Part-Whole Model: A tree diagram showing 52 at the top, branching into 40 and 12. 40 is divided by 4 to get 10, and 12 is divided by 4 to get 3. The final result is $10 + 3 = 13$.

Equation: $52 \div 4 = 13$

Place Value Grid: A table with two columns: Tens and Ones. The Tens column contains four rows of one ten counter each. The Ones column contains four rows of two one counters each.

Prior learning

The diagram illustrates prior learning for division using place value counters and a part-whole model.

Place Value Counters: A table with two columns: Tens and Ones. The Tens column contains two rows of one ten counter each. The Ones column contains two rows of two one counters each.

Part-Whole Model: A tree diagram showing 20 at the top, branching into 10 and 10. 10 is divided by 5 to get 2, and 10 is divided by 5 to get 2. The final result is $2 + 2 = 4$.

Equation: $20 \div 5 = 4$

Place Value Grid: A table with two columns: Tens and Ones. The Tens column contains two rows of one ten counter each. The Ones column contains two rows of two one counters each.

When dividing numbers involving an exchange, children can use dienes 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 in the rows.

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

Year 3 Division policy (Divide 2 digits by 1 digit – sharing with remainders)

The diagram shows the division of 53 by 4. At the top, 53 is represented by 5 tens rods and 3 ones units. A place value grid shows 5 tens and 3 ones. A part-whole model shows 53 as 40 + 13, which is further partitioned into 4 groups of 10 and 3, plus a remainder of 1. The equation $53 \div 4 = 13 \text{ r}1$ is shown. A second place value grid shows 5 tens and 3 ones, with 4 groups of 13 (1 ten and 3 ones) being removed, leaving 1 one as a remainder.

Prior learning

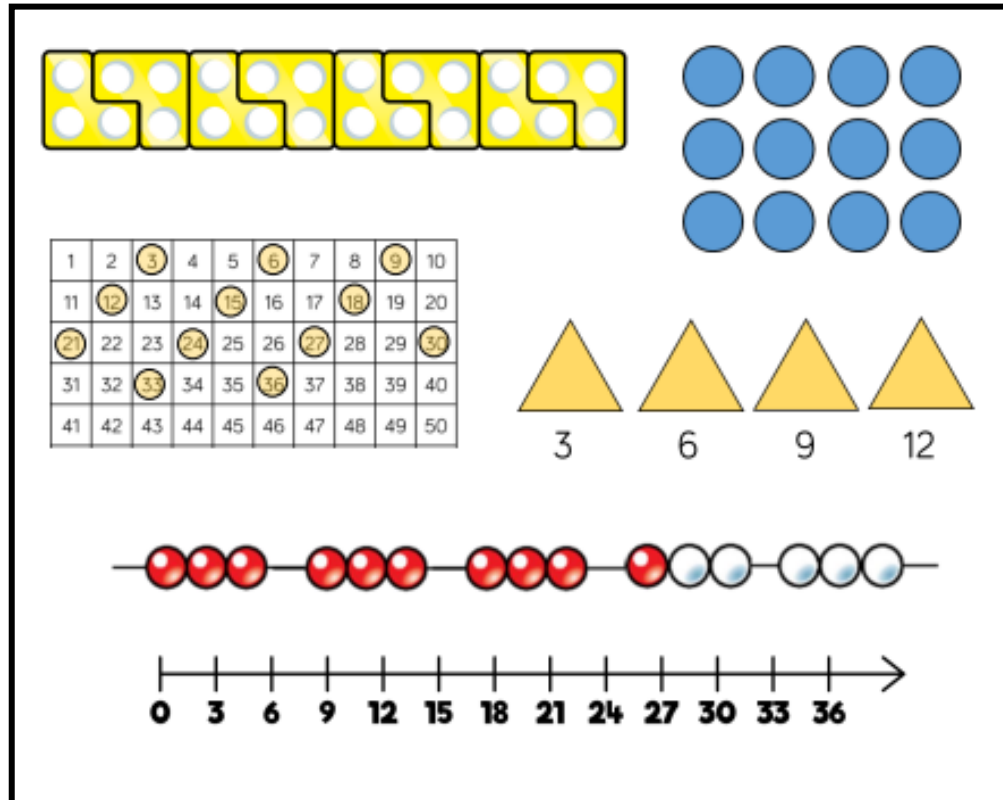
The diagram shows prior learning for division. It starts with 20 apples shared equally between 5 bags, represented by 20 dots and the equation $20 \div 5 = 4$. Below this, 48 is represented by 4 tens rods and 8 ones units. A place value grid shows 4 tens and 8 ones. A part-whole model shows 48 as 40 + 8, which is further partitioned into 2 groups of 20 and 8, plus a remainder of 0. The equation $48 \div 2 = 24$ is shown. A final place value grid shows 4 tens and 8 ones, with 2 groups of 24 (2 tens and 4 ones) being removed, leaving 0 as a remainder.

When dividing numbers with remainders, children can use dienes 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.

Year 3 Times tables policy (3)



Prior Learning

2 times table

5 times table

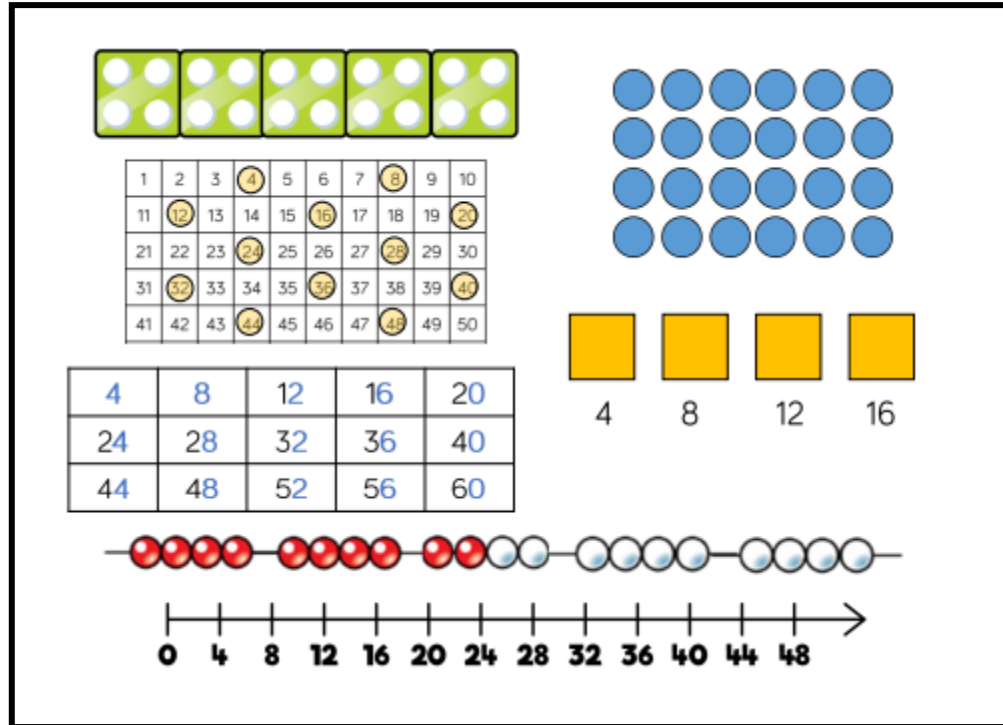
10 times table

Encourage daily counting in multiples both forwards and backwards. This can be supported using a number line or a hundred square.

Look for patterns in the three times table, using concrete manipulatives to support. Notice the odd, even, odd, even pattern using numicon to support.

Highlight the pattern in the ones using a hundred square.

Year 3 Times tables policy (4)



Prior Learning

2 times table

5 times table

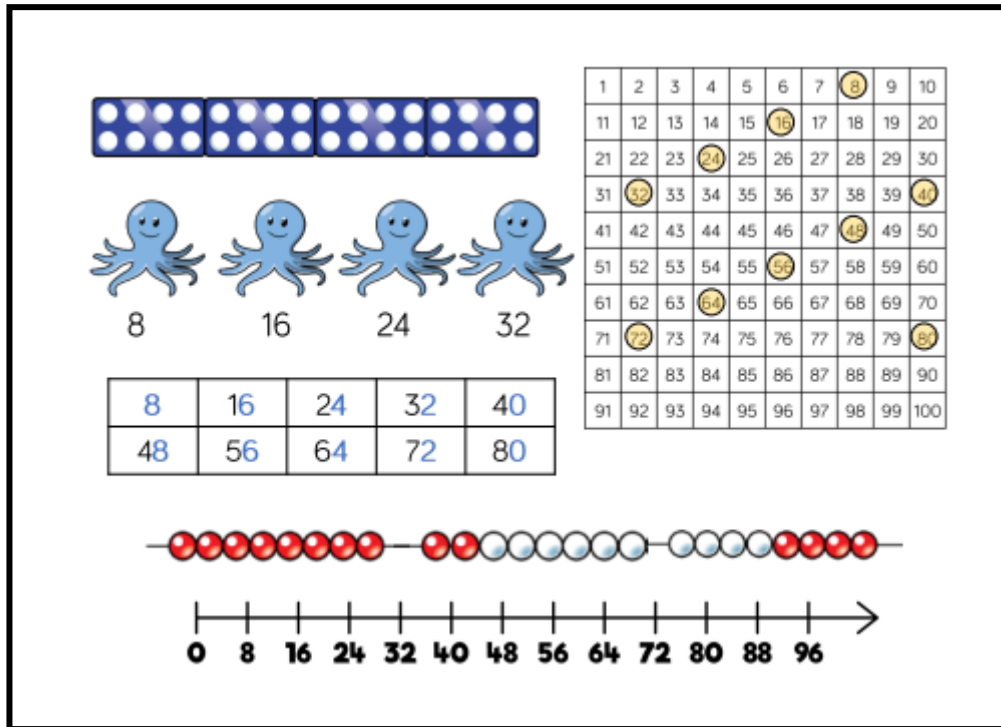
10 times table

Encourage daily counting in multiples both forwards and backwards. This can be supported using a number line or a hundred square.

Look for patterns in the four times table, using manipulatives to support. Make links to the 2 times table seeing how each multiple is double the twos. Notice the pattern in the ones within each group of five multiples

Highlight the pattern that all multiples are even using numicon to support.

Year 3 Times tables policy (8)



Prior Learning

2 times table

5 times table

10 times table

Encourage daily counting in multiples both forwards and backwards. This can be supported using a number line or a hundred square.

Look for patterns in the eight times table, using manipulatives to support. Make links to the 4 times table seeing how each multiple is double the fours. Notice the pattern in the ones within each group of five multiples

Highlight the pattern that all multiples are even using numicon to support.