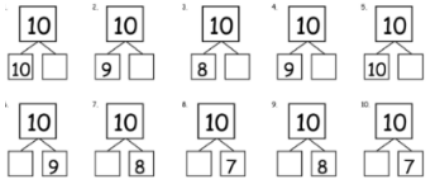
Cawood CE VA Primary School

Calculations Guidance

Images taken from Maths No Problem Calculations Policy

Addition

Year group	Objective and Strategies	Representations (Concrete, Pictorial, Abstract)	Vocabulary
Nursery	Part-whole: identifying smaller numbers within a number up to 5 (subitising)	Everyday objects e.g. ladybirds five frames numicon blocks maths books - Anno's counting Book ten town to number 5 	• Numbers 1-5 • part • altogether • count • how many ways • where can you see _____ • show me Sentence stems I counted____ There is 1 ____ There are 2/3____ There are _____ altogether I can see____ I can see____ without counting
Reception	Part-whole: identifying smaller numbers within a number up to 10 (subitising)	Everyday objects e.g. ladybirds five frames and ten frames numicon multi link blocks maths books - Anno's counting Book part part whole model peg boards 	• Numbers 0-10 • part • whole • how many ways • show me Sentence stems I can see____is made up of ___ and ____ I can see ____ is made up of ___, ___ and ____

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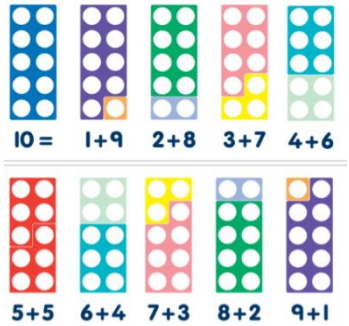
Reception	A number can be partitioned into different parts of numbers	numicon containers - partitioning in different ways - everyday objects part part whole double sided counters	

Images taken from Maths No Problem Calculations Policy

Reception	A number can be partitioned into different parts of numbers	everyday objects containers - partitioning in different ways - everyday objects part part whole +	There is ____ here and ____ there so there must be ____ altogether
Reception	Number bonds: knowing which pairs make a given number	everyday objects 	

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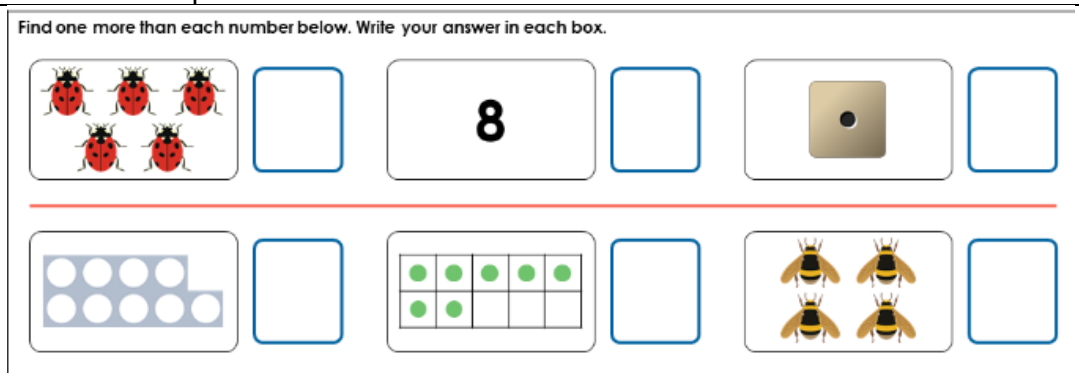
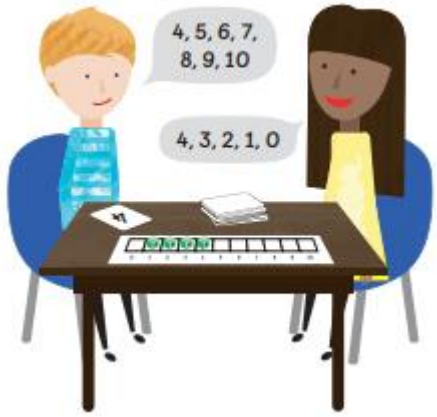
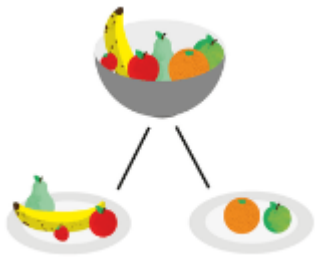
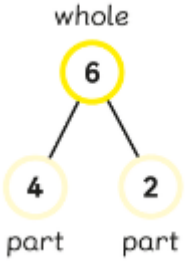
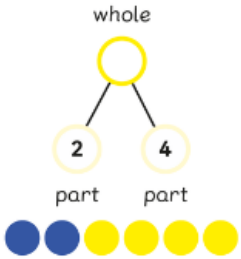
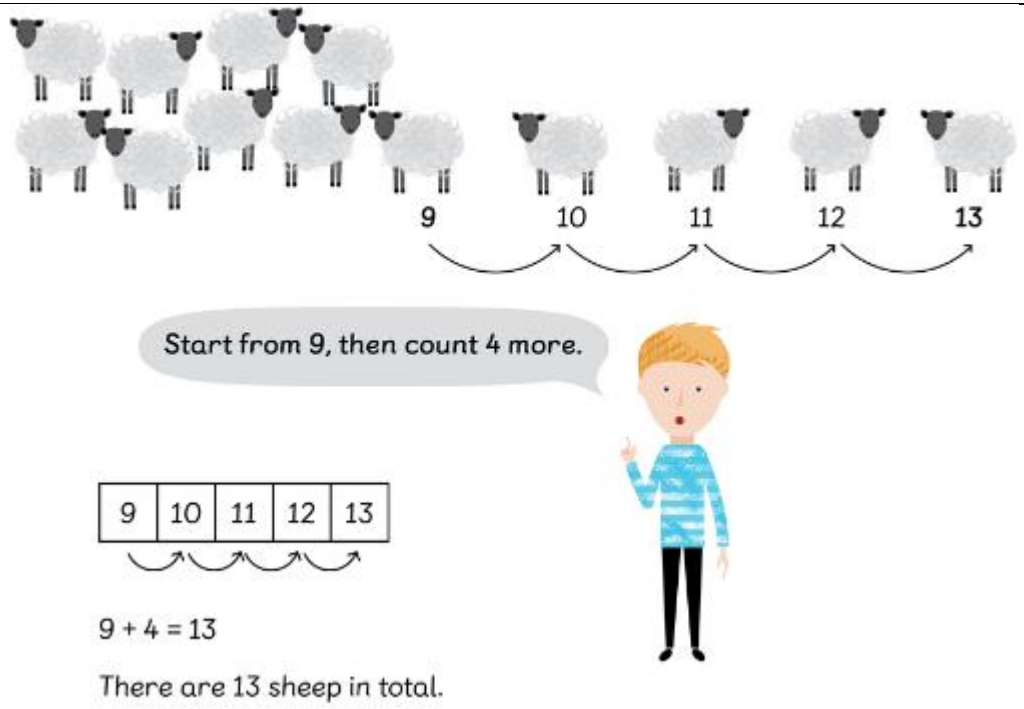
Reception	One more		• how many • how many now • one more • greater Sentence stems There are _____ There are _____ altogether _____ is 1 more than _____
Year 1	Using a number track for counting forwards and backwards to 10		• numbers 0–10 • digit • count forwards • count backwards • numbers 1–10 • number track • even numbers • odd numbers

Images taken from Maths No Problem Calculations Policy

Year 1	Adding two numbers to make ten. Number bonds to 10 and within 10.	  	• number bond • How many? • break apart • the same as • part, part, whole • greater • smaller There are 6 pieces of fruit. 6 is the _____. 4 is a _____ and ___ is a part. 4 and 2 make ___. 3 and ___ make 6. ___ and 0 make 6.
Year 1	Add by counting on within 10.		• count on, counting on • add • addition • plus • equals • greater number • in total

Images taken from Maths No Problem Calculations Policy

			• altogether **Sentence Starters** ___ plus ___ equals ___. There are ___ _____ altogether. ___ plus ___ equals ___. There are ___ _____ in total.
Year 1	Add by counting on within 20.		• add • counting on • greater, greatest • in total, total • numbers 11–20 **Sentence Starters** • I can count on from the greater number. The greater number is ___.

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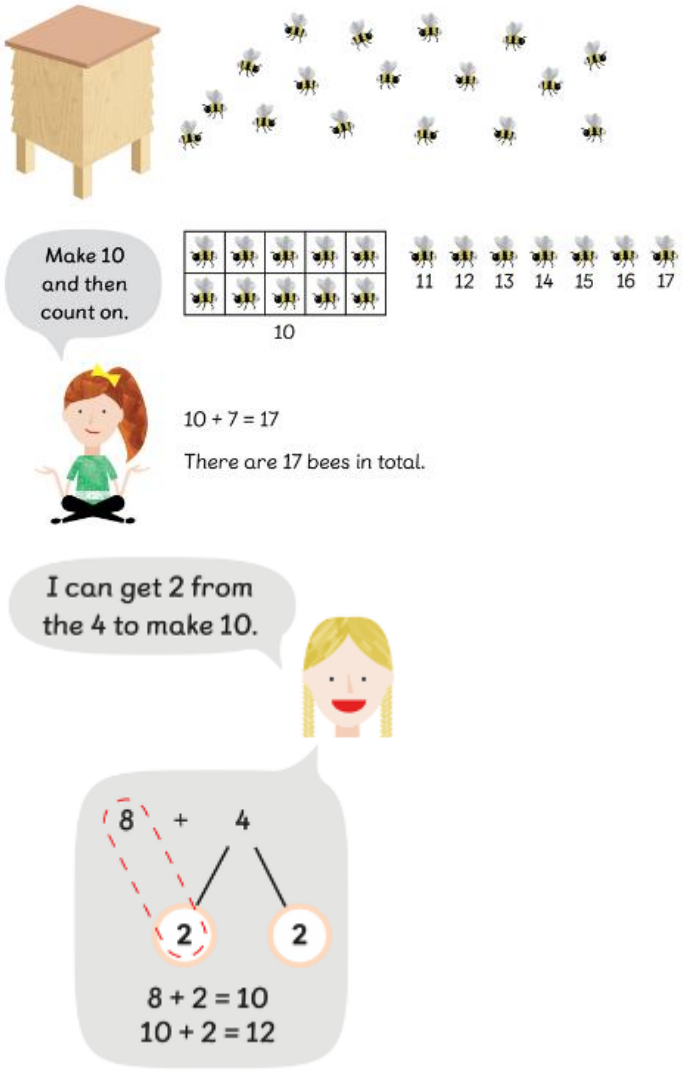
Year 1	Adding by making 10. Adding within 20.		• making 10 • counting on from 10 • in total • altogether • add • plus • equals • number bond, number bond diagram • ten frame **Sentence Starters** I know there are 10 _____. I can count on from 10. 11, 12, ... There are ___ _____ in total/altogether. Ten plus ___ equals ___. ___ and/plus ___ make 10. 10 and/plus ___ equals ___.

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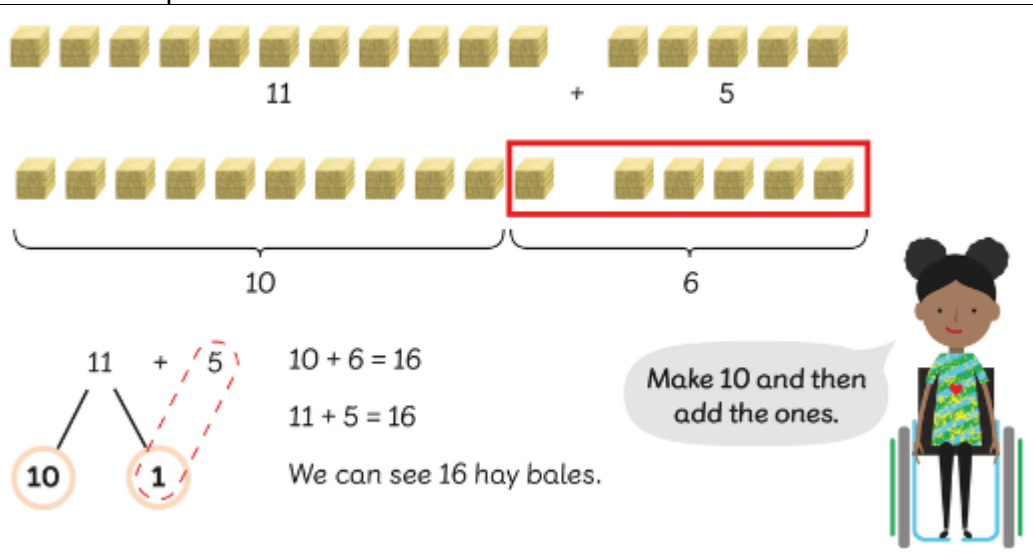
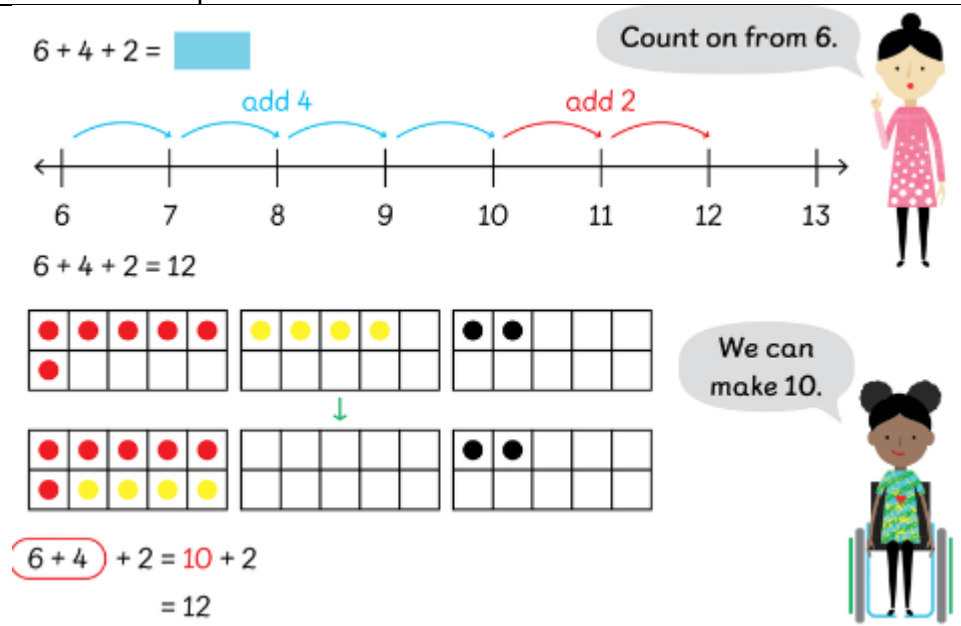
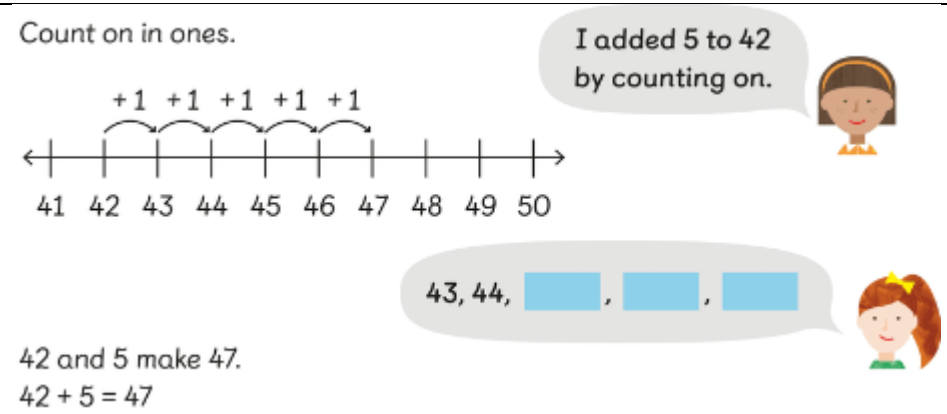
Year 1	Add by partitioning the tens and the ones and adding the ones.		• altogether/total • make 10 • add • plus • equals • number bond, number bond diagram **Sentence Starters** • ___ and/plus ___ make 10. 10 and/plus ___ equals ___.

Images taken from Maths No Problem Calculations Policy

Year 2	Adding three single digits		• altogether • counting on • add • plus • equals • making 10 • double **Sentence Starters** 6 and ___ make 10. Double 8 is ___.
Year 2	Add a 1-digit and a 2-digit number to a 2-digit number without regrouping		• altogether • ones • tens • ___ and ___ make ___. • addition equation • counting on (in ones) • add • add the ones • add the tens • plus

Images taken from Maths No Problem Calculations Policy

<table>
<tr>
<td></td>
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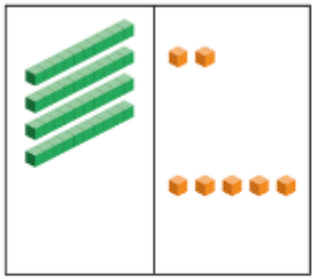
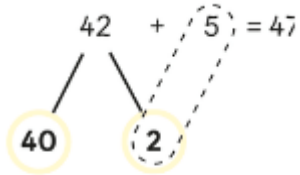
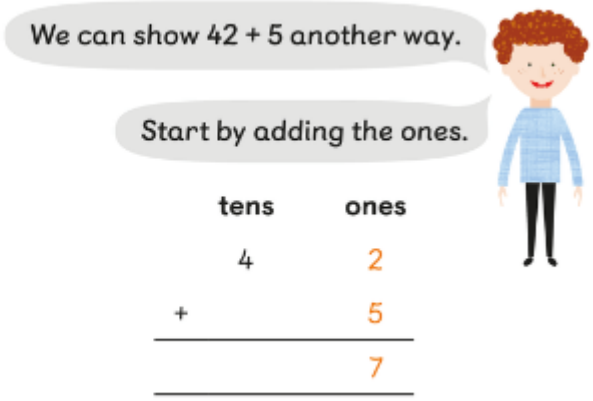
<td>

2 ones + 5 ones = 7 ones
2 + 5 = 7


2 + 5 = 7
42 + 5 = 47


</td>
<td>

- equals
- number line
- number bond, number bond diagram
- breaking up/partitioning a number
- column, column method

Sentence starters

2 ones + 5 ones = ___

4 tens + 0 tens = ___

42 and 5 make ___.

There are ___ books in total.
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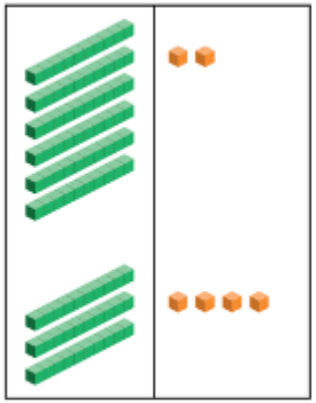
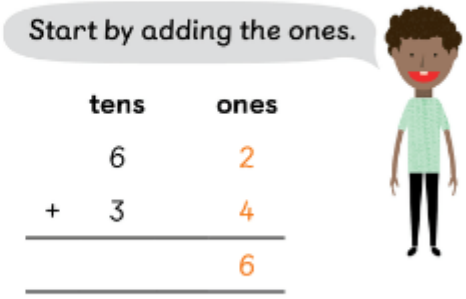
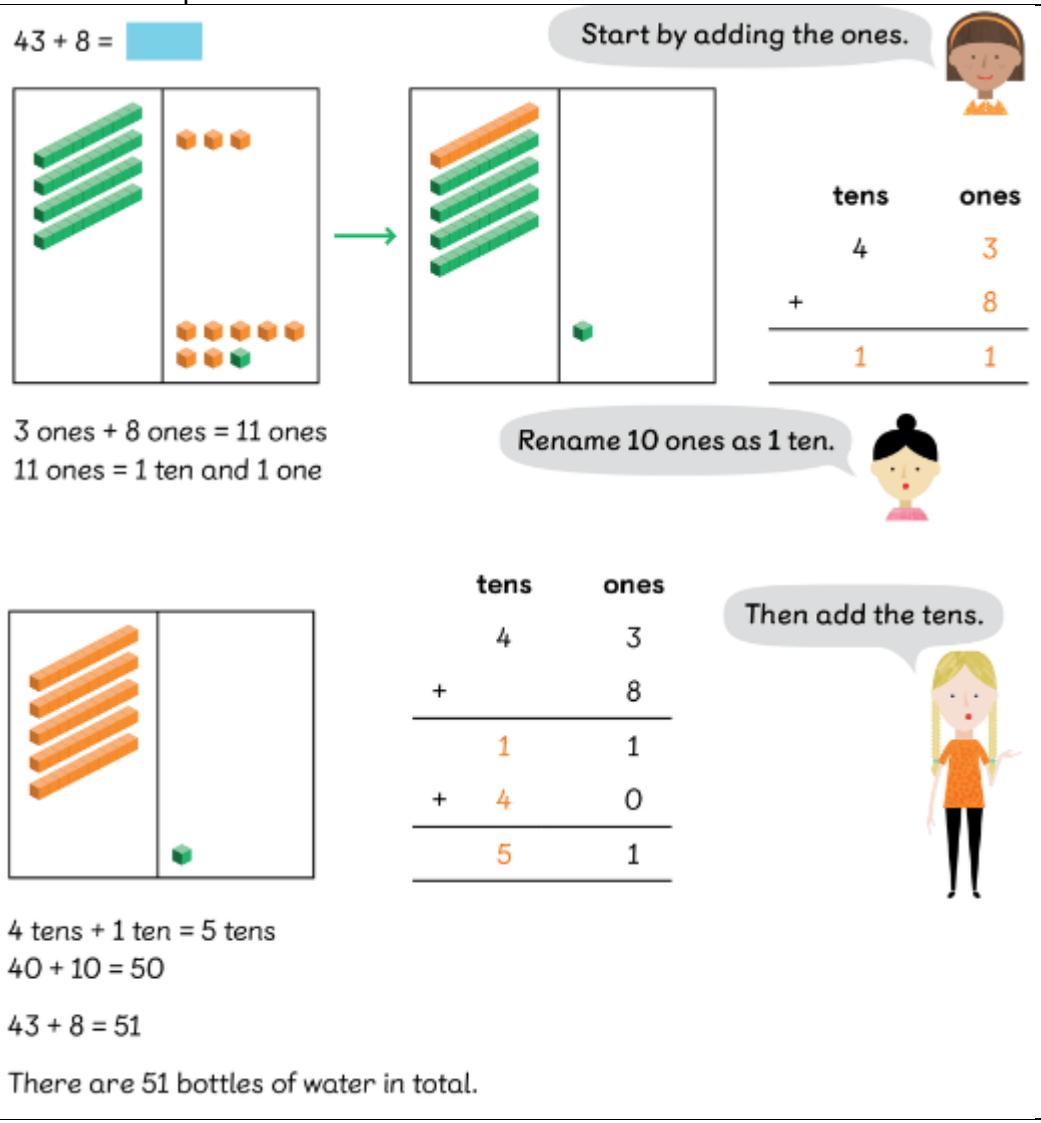
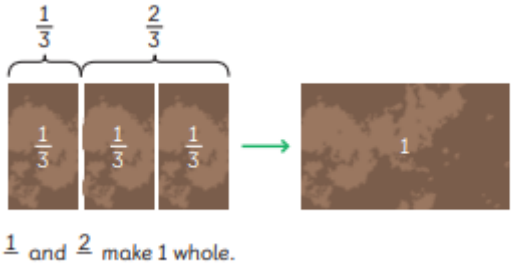
Images taken from Maths No Problem Calculations Policy

		Show the number of passengers using  .  2 ones + 4 ones = 6 ones 2 + 4 = 6 	

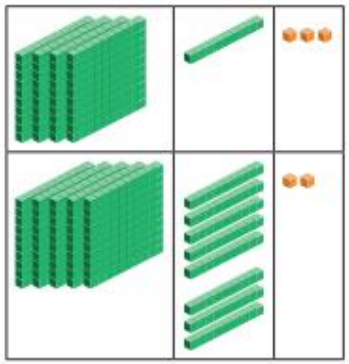
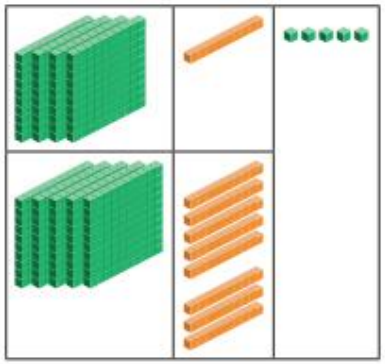
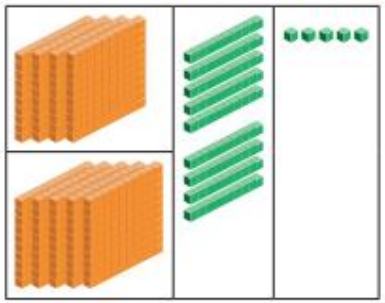
Images taken from Maths No Problem Calculations Policy

Year 2	Add 1-digit and 2-digit numbers to a 2-digit number with regrouping		• total • ones • tens • add • add the ones • add the tens • plus • equals • renaming • rename 10 ones as 1 ten • column method **Sentence starters** 3 ones + 8 ones = ___ 11 ones = ___ ten and ___ one 4 tens + 1 ten = ___ There are ___ bottles of water in total.

Images taken from Maths No Problem Calculations Policy

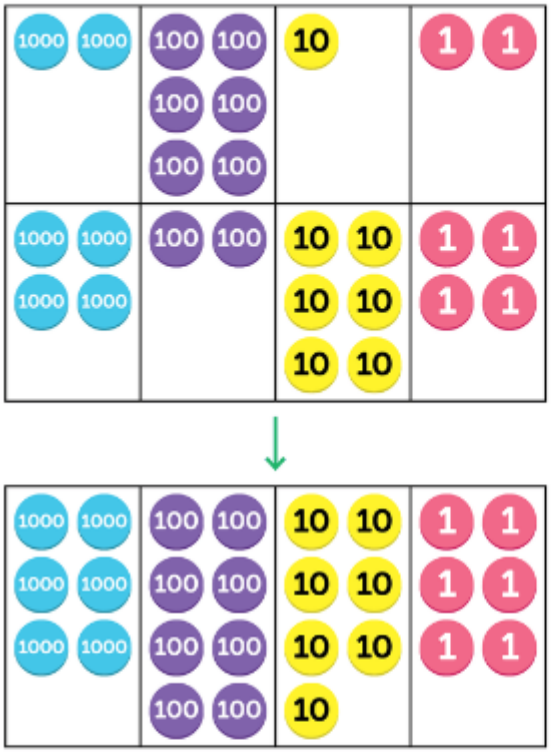
Year 2	Making a whole (adding fractions)		• fraction • whole • halves • thirds • quarters **Sentence starters** Do these two fractions combine to a whole? What fraction do we need to add to _____ to get a whole?

Images taken from Maths No Problem Calculations Policy

Years 3 and 4	Add using formal written methods without renaming.	413 + 582 = ☐ Step 1 Add the ones. 3 ones + 2 ones = 5 ones  Step 2 Add the tens. 1 ten + 8 tens = 9 tens  Step 3 Add the hundreds. 4 hundreds + 5 hundreds = 9 hundreds  413 + 582 = 995 h t o 4 1 3 + 5 8 2 5 h t o 4 1 3 + 5 8 2 9 5 h t o 4 1 3 + 5 8 2 9 9 5	Year 3 • ones column • tens columns • hundreds column • column addition **Sentence starters** I start by adding the ___. I add the ___, then the ___ and finally the ___.

Images taken from Maths No Probl

£2612 + £4264 = ☐



Add the ones.
2 ones + 4 ones = 6 ones

Add the tens.
1 ten + 6 tens = 7 tens

Add the hundreds.
6 hundreds + 2 hundreds = 8 hundreds

Add the thousands.
2 thousands + 4 thousands = 6 thousands

2612 + 4264 = 6876

The flights to Australia cost £6876.

	2	6	1	2
+	4	2	6	4
	6	8	7	6

Year 4

- add
- sum
- total
- how many are there altogether?
- base 10 materials
- place value
- place-value counters
- ones
- tens
- hundreds
- thousands

Sentence starters

I can show the number with _____.

The bar model shows me ___.

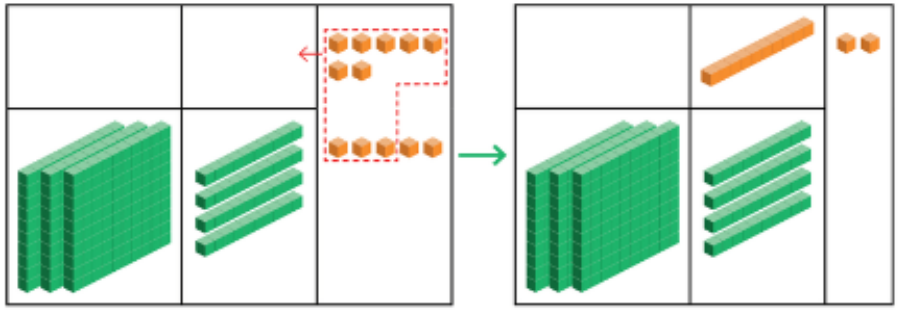
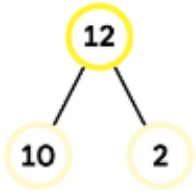
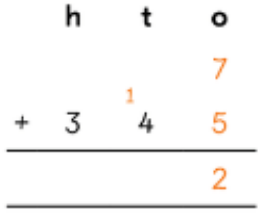
There are ___ altogether.

The sum of ___ and ___ is ___.

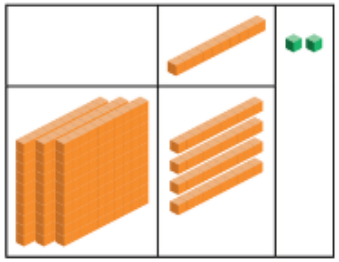
Images taken from Maths No Probl

			I add the ones. Then i add the ___. Then I add the ___.

Images taken from Maths No Problem Calculations Policy

Years 3, 4 and 5	To add using formal written methods with renaming.	Step 1 Add the ones. 7 ones + 5 ones = 12 ones  Rename the ones. 12 ones = 1 ten + 2 ones   	Year 3 • renaming • making 10 • making 100 • number bonds • in total • estimate • approximate • approximation **Sentence starters** I can break a number into ___ and ___ to make ten. I can rename ___ ones into ___ tens and ___ ones. I can use a making 10 strategy when the total of the ones is greater than ___, The number I am looking at is approximately ___. 10 tens are equal to ___. 1 hundred is equal to ___ tens.

Images taken from Maths No Problem Calculations Policy

		Step 2 Add the tens. 1 ten + 4 tens = 5 tens Add the hundreds. 0 hundreds + 3 hundreds = 3 hundreds  7 + 345 = 352 	10 ones are equal to ___ ten. 1 ten is equal to ___ ones. Year 4 • add • sum • how many are there altogether? • base 10 materials • place value • place-value counters • ones • tens • hundreds • thousands • rename • round to the nearest 100 • round to the nearest 1000 **Sentence starters** I can show the number with _____. The bar model shows me _____.

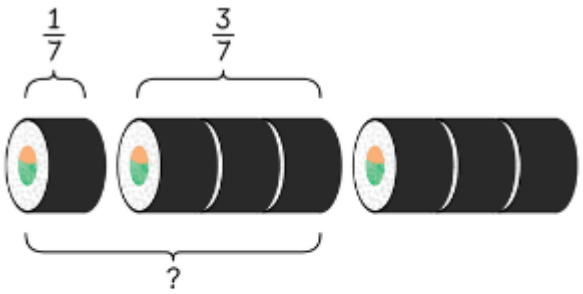
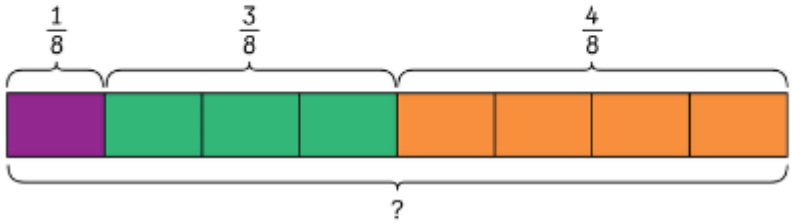
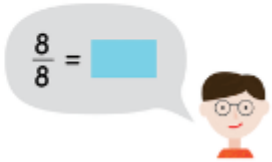
Images taken from Maths No Problem Calculations Policy

		4188 + 3245 = ☐ 4 1 8 8 + 3 2 4 5 1 3 Add the ones. 1 2 0 Add the tens. 3 0 0 Add the hundreds. + 7 0 0 0 Add the thousands. 7 4 3 3 2 6 1 2 + 4 2 6 4 6 8 7 6	I add the ones. Then I add the ___. Then I add the ___ and finally the ___. I rounded to the nearest ___ to estimate. I rename the ___ (ones/tens). Year 5 • ones • tens • hundreds • thousands • ten thousands • hundred thousands • rounding to the nearest 10 000 **Sentence starters** [199 000] is approximately equal to _____ when rounding to the nearest 10 000.

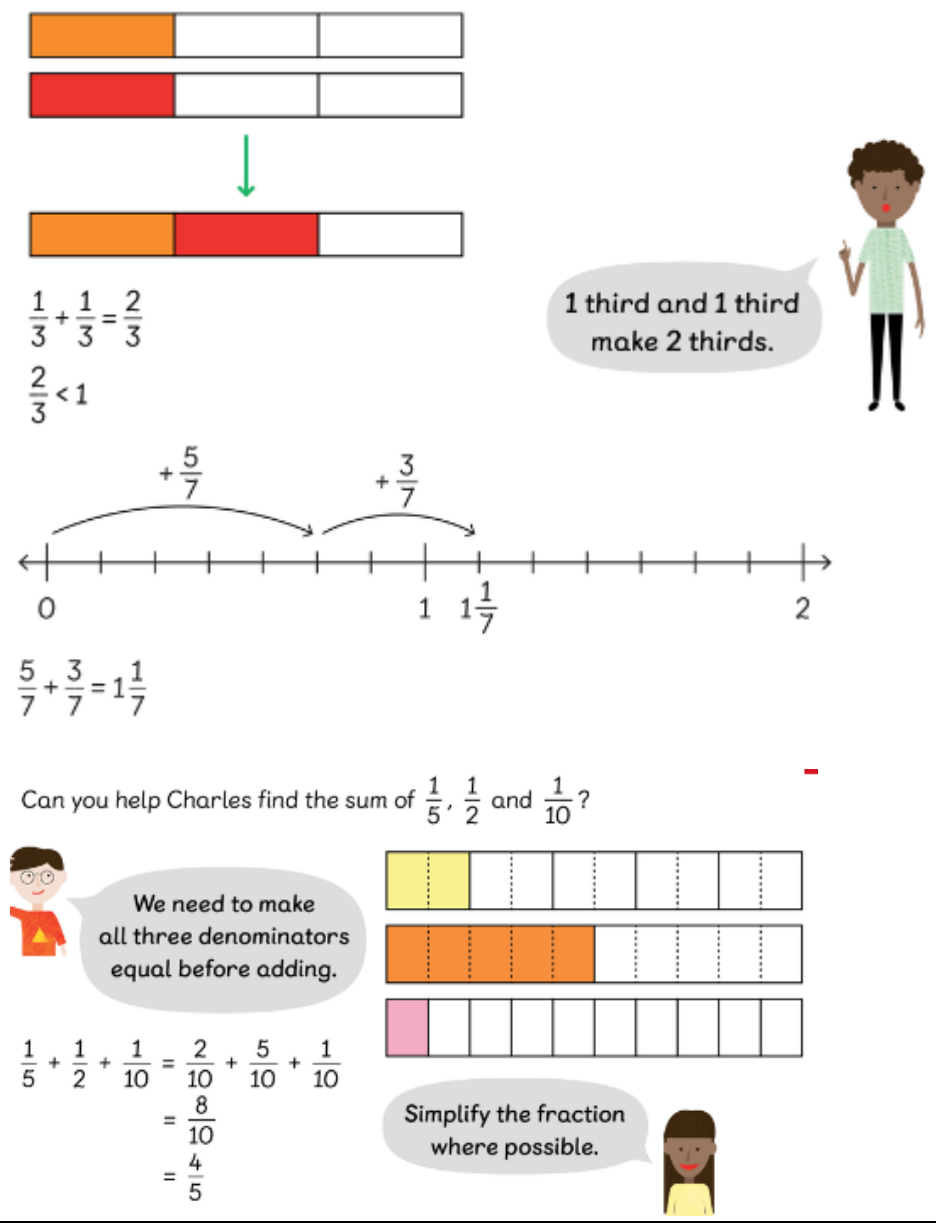
Images taken from Maths No Problem Calculations Policy

		 1 1 5 0 0 0 + 1 7 0 0 0 3 2 0 0 0 5 thousands + 7 thousands = 12 thousands 12 thousands = 1 ten thousand + 2 thousands 15 000 + 17 000 = 32 000	The approximate total number of spectators at the events was _____. The actual number of spectators was _____.

Images taken from Maths No Problem Calculations Policy

Year 3, 4, 5, 6	Adding fractions	 1 seventh and 3 sevenths make 4 sevenths. $\frac{1}{7} + \frac{3}{7} = \frac{4}{7}$ Hannah and Jacob will take $\frac{4}{7}$ of the sushi roll. $\frac{1}{8} + \frac{3}{8} + \frac{4}{8} =$ ☐  1 eighth, 3 eighths and 4 eighths make ☐ eighths. $\frac{1}{8} + \frac{3}{8} + \frac{4}{8} =$ ☐ 	• mixed number • fraction • part • whole number • proper fraction • improper fraction • numerator • denominator • equivalent • number line • add • sum • >, <, = • greater than • less than • equal to • simplify **Sentence starters** ___ thirds and ___ thirds make ___ thirds. 2/3 is greater than/less than ___.

Images taken from Maths No Problem Calculations Policy



4/11 and 5/11 equals ___.

4/6 and ____ equals 1.

There are ___ l of juice altogether.

Hannah and Charles walked ___ km in total.

Year 4

- denominator
- common denominator
- add
- fraction

Sentence starters

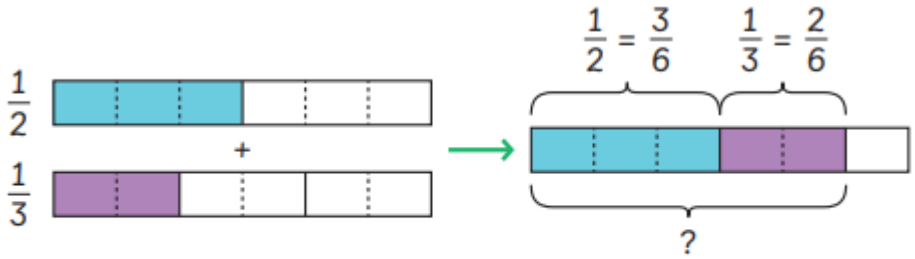
There are ___ doughnuts in total.

The missing fraction is ___.

Year 5

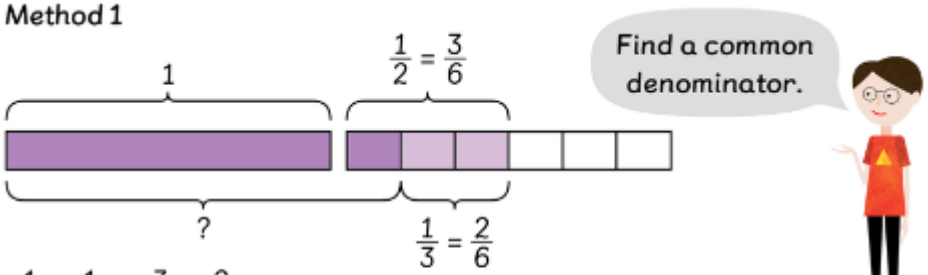
- simplify
- fraction
- denominator
- equal
- common denominator

Images taken from Maths No Problem Calculations Policy



$\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$

Method 1



$1\frac{1}{2} - \frac{1}{3} = 1\frac{3}{6} - \frac{2}{6}$

$= 1\frac{1}{6}$

- sum
- improper fraction
- mixed number
- add

Sentence starters

I simplified the fraction by …

When adding fractions we must make the denominators the ____.

I drew a model with ___ parts to help.

Year 6

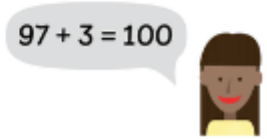
- fraction
- proper fraction
- improper fraction
- mixed number
- compare
- lowest common multiple
- common denominator
- greater than
- bar model
- add

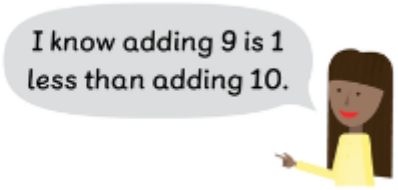
Images taken from Maths No Problem Calculations Policy

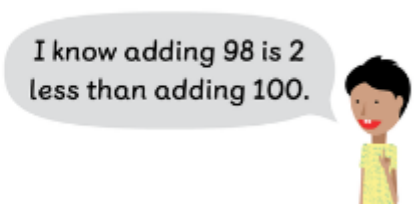
			• heavier/heaviest • lighter/lightest • total mass • volume • bar model **Sentence starters** The lowest common multiple of 2 and 3 is ___. The total mass is ___. I solved the word problem by… The method I chose was...

Images taken from Maths No Problem Calculations Policy

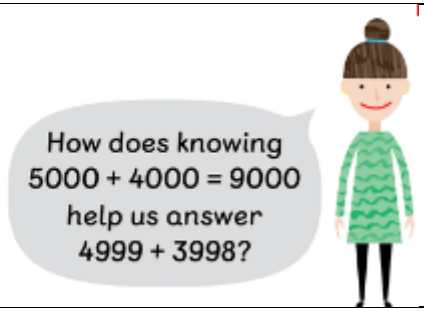
Year 4	Use mental strategies to add (compensation)	Find the sum of 4072 and 8 by adding mentally. make 10 4072 + 8 = ☐ 4072 + 8 = 4070 + 10 4072 + 8 = 4080 The sausage sizzle fundraiser made £4080 altogether. Calculate the sum of 97 and 5213 by adding mentally. make 100 97 + 5213 = ☐ 97 + 5213 = 100 + 5210 = 5310 Lulu used this method to find the sum of 3067 and 9. 3067 + 10 = 3077 3067 + 9 = 3076 (1 less) Ravi used this method to find the sum of 98 and 5262. 100 + 5262 = 5362 98 + 5262 = 5360 (2 less)	• find the sum • total • how much altogether? • add • calculate mentally • make 10 • make 100 • calculation • equation • 1 less/2 less/ 3 less • round • method **Sentence starters** I calculated mentally by ___. I made ___ (10/100). The total is ___ altogether. I have added ___ instead of ___ because ___. This calculation is 1 less/2 less because ___.



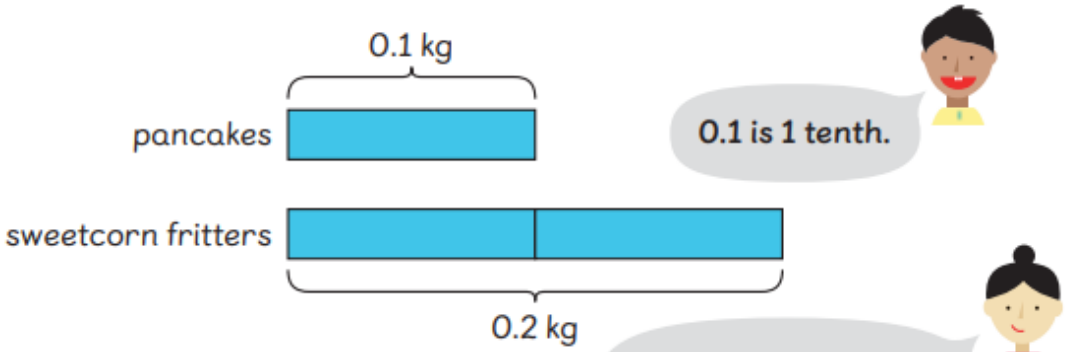




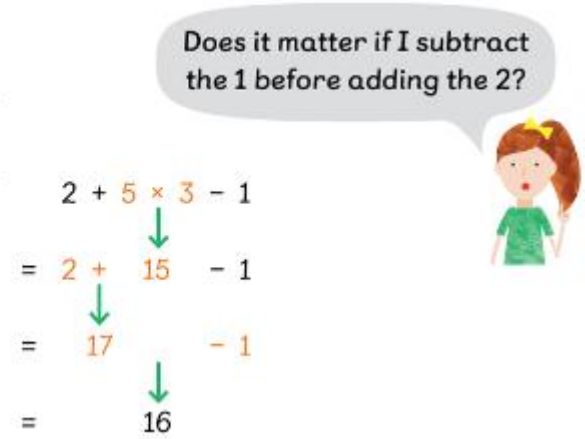
Images taken from Maths No Problem Calculations Policy

		4999 + 3998 = ☐ 5000 + 4000 = 9000 4999 + 3998 = 8997 3 less 	

Images taken from Maths No Problem Calculations Policy

Year 5	Adding decimals	 0.1 + 0.2 = 0.3 0.1 0.1 0.1 0.1 0.1 (a) 1 tenth + 4 tenths = ☐ tenths 0.1 + 0.4 = ☐ (b) 5 tenths − 3 tenths = ☐ tenths 0.5 − 0.3 = ☐ £1 . 8 0 + £0 . 7 0 £2 . 5 0 (a) 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.5 + 0.3 = ☐ 0.8 − 0.4 = ☐	• tenths • hundredths • thousandths • decimal • decimal point • total • ones • column method **Sentence starters** ___ tenth(s) and ___ tenth(s) make ___ tenths. I added these decimals by… The total cost of ___ and ___ is ___. [decimal number] has ___ one(s), ___ tenth(s), ___ hundredth(s) and __ thousandth(s). I added these amounts of money by… ___ plus ___ equals 1.

Images taken from Maths No Problem Calculations Policy

			[whole number / decimal number] equals ___ tenths.
Year 6	Addition within order of operations	First, multiply or divide, working from left to right. Then, add or subtract, working from left to right.  Holly is correct.	• operation • calculation • calculation bracket • add/addition • subtract/subtraction • multiply/multiplication • divide/division • mixed operation **Sentence starters** I work from ____ [left] to ____ [right]. I ____ (multiply / divide), then ___ (add / subtract). I calculate what is inside the brackets ____ [first].

Images taken from Maths No Problem Calculations Policy

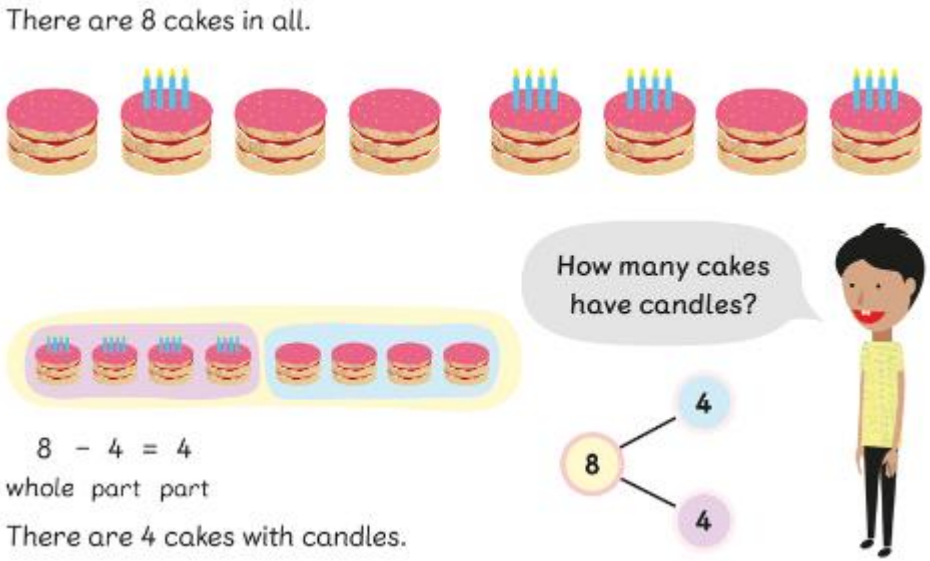
Subtraction

Year group	Objective and Strategies	Representations (Concrete, Pictorial, Abstract)	Vocabulary
Reception	One less (composition)		• subtract • one less • less than • How many will be left? • taken away • more than • larger/largest Sentence stems There are____ There are ____altogether _____ is 1 less than ____
	Subtracting zero		•

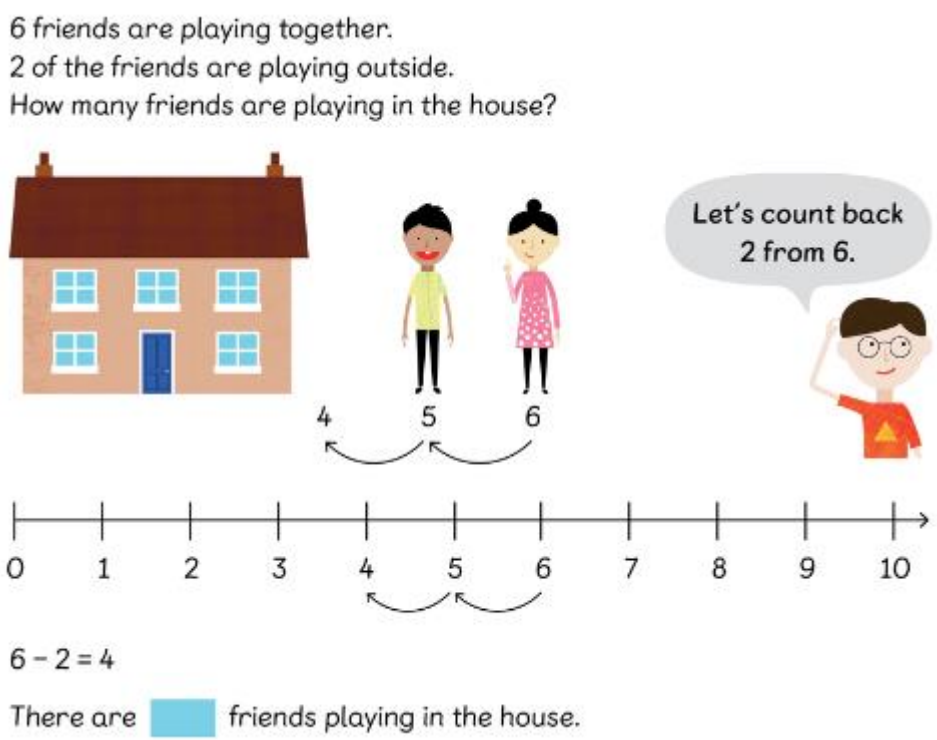
Images taken from Maths No Problem Calculations Policy

Year 1	Subtract by crossing out	There are 7 snakes. 4 go to hide. How many snakes are not hiding?  7 – 4 = 3	• crossing out • subtraction equation • number sentence • minus • equals **Sentence Starters** • I crossed out ___ _____. ___ minus ___ equals ___. There are ___ _____ left.

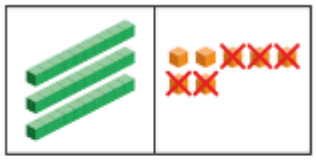
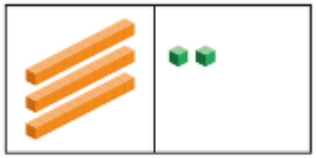
Images taken from Maths No Problem Calculations Policy

	Subtract by using number bonds		• number bond, number bond diagram • part, part, whole **Sentence Starters** • There are ___ elephants. ___ elephants are adults. ___ minus ___ equals ___. ___ elephants are not adults. • ___ is the whole. ___ is one part and ___ is the other part. ___ minus ___ equals ___.

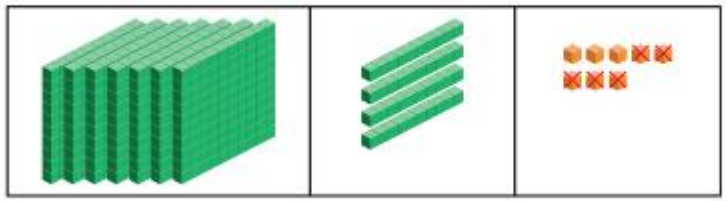
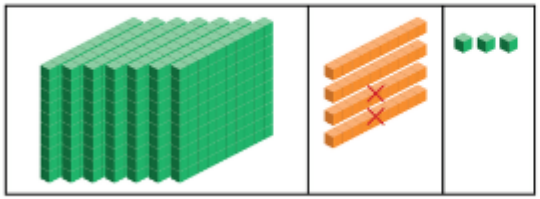
Images taken from Maths No Problem Calculations Policy

	Subtract by counting back within 10		• count back, counting backwards • number story **Sentence Starters** • There are ___ _____ altogether/in total. Sam takes ___ _____. ___ minus ___ equals ___. There are ___ _____ left.

Images taken from Maths No Problem Calculations Policy

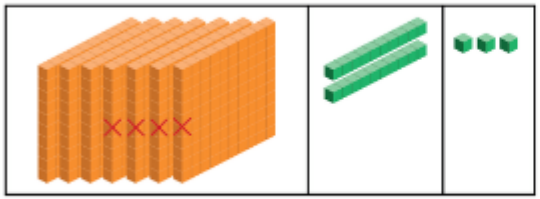
Year 2	Subtract using base 10	 7 ones − 5 ones = 2 ones  3 tens − 0 tens = 3 tens 37 − 5 = 32	• ones • tens • subtract the ones • subtract the tens • breaking up/partitioning a number • left **Sentence starters** • 7 ones – 5 ones = ___ • 3 tens – 0 tens = ___ • ___ screws are left.

Images taken from Maths No Problem Calculations Policy

	Subtract using the column method	<table><tr><th></th><th>tens</th><th>ones</th></tr><tr><td></td><td>5</td><td>8</td></tr><tr><td>−</td><td>4</td><td>0</td></tr><tr><td></td><td></td><td>8</td></tr></table> <table><tr><th></th><th>tens</th><th>ones</th></tr><tr><td></td><td>5</td><td>8</td></tr><tr><td>−</td><td>4</td><td>0</td></tr><tr><td></td><td>1</td><td>8</td></tr></table>	• column method
Year 3, 4 and 5.	Subtract using the column method with no renaming	Step 1 Subtract the ones. 8 ones − 5 ones = 3 ones  <table><tr><th></th><th>h</th><th>t</th><th>o</th></tr><tr><td></td><td>7</td><td>4</td><td>8</td></tr><tr><td>−</td><td>4</td><td>2</td><td>5</td></tr><tr><td></td><td></td><td></td><td>3</td></tr></table> Step 2 Subtract the tens. 4 tens − 2 tens = 2 tens  <table><tr><th></th><th>h</th><th>t</th><th>o</th></tr><tr><td></td><td>7</td><td>4</td><td>8</td></tr><tr><td>−</td><td>4</td><td>2</td><td>5</td></tr><tr><td></td><td></td><td>2</td><td>3</td></tr></table>	Year 3 • subtract ones • subtract tens • Subtract hundreds • count back in ones • count back in tens • count back in hundreds **Sentence starters** 8 ones – 5 ones = [ ] ones 4 tens – 2 tens = [ ] tens 8 hundreds – 5 hundreds = [ ] hundreds

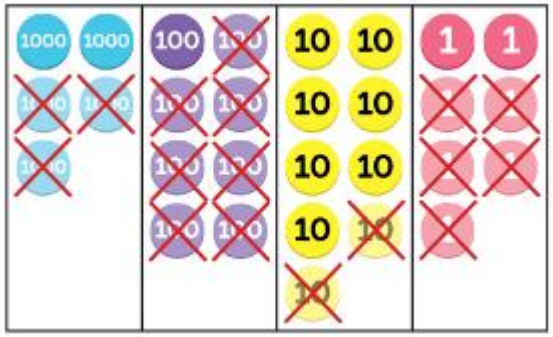
Images taken from Maths No Problem Calculations Policy

Step 3 Subtract the hundreds.
7 hundreds − 4 hundreds = 3 hundreds



	h	t	o
	7	4	8
−	4	2	5
	3	2	3

748 − 425 = 323



Step 1 Subtract the ones.
7 ones − 5 ones = 2 ones

Step 2 Subtract the tens.
9 tens − 2 tens = 7 tens

Step 3 Subtract the hundreds.
8 hundreds − 7 hundreds = 1 hundred

Step 4 Subtract the thousands.
5 thousands − 3 thousands = 2 thousands

	5	8	9	7
−	3	7	2	5
	2	1	7	2

5897 − 3725 = 2172

There were [ ] tomotoes left.

Year 4

- difference
- find the difference
- subtract
- addition
- check
- ones
- tens
- hundreds
- thousands

Sentence starters

I subtract the _____ (ones/tens/hundreds).

I need to _____ to find the difference.

I can use _____ to check the difference.

Year 5

- tens

Images taken from Maths No Problem Calculations Policy

		Subtract the number of runners in the two cities to compare them. 4 2 2 7 0 − 3 7 0 0 0 □□ 2 7 0 What is 42 − 37? 42270 − 37000 = □	• hundreds • thousands • ten thousands • hundred thousands • place value • rename/renaming • difference **Sentence starters** There were _____ more runners in the [London] marathon than in the [Boston] marathon.

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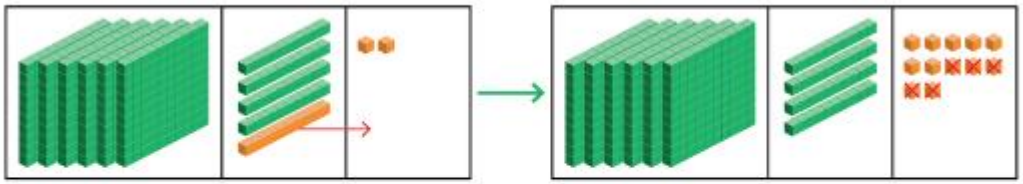
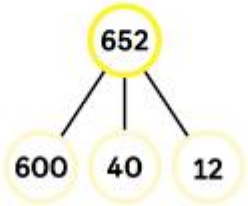
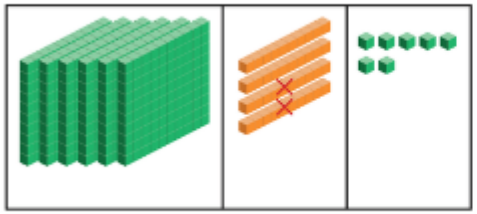
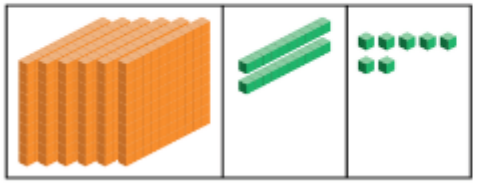
Year 3, 4 and 5	Subtract using the column method with renaming	Step 1 Rename 1 ten as 10 ones. Subtract the ones.  12 ones – 5 ones = 7 ones  h t o 6 ~~5~~ ~~2~~ – 2 5 7 Step 2 Subtract the tens.  h t o 6 ~~5~~ ~~2~~ – 2 5 2 7 4 tens – 2 tens = 2 tens Step 3 Subtract the hundreds.  h t o 6 ~~5~~ ~~2~~ – 2 5 6 2 7	Year 3 ● rename ● place-value ● columns **Sentence starters** Rename 1 ten as ___ ones. I start by subtracting the ___. Year 4 ● difference ● find the difference ● subtract ● addition ● check ● ones ● tens ● hundreds ● thousands **Sentence starters** There are not enough _____ to subtract. So, I

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		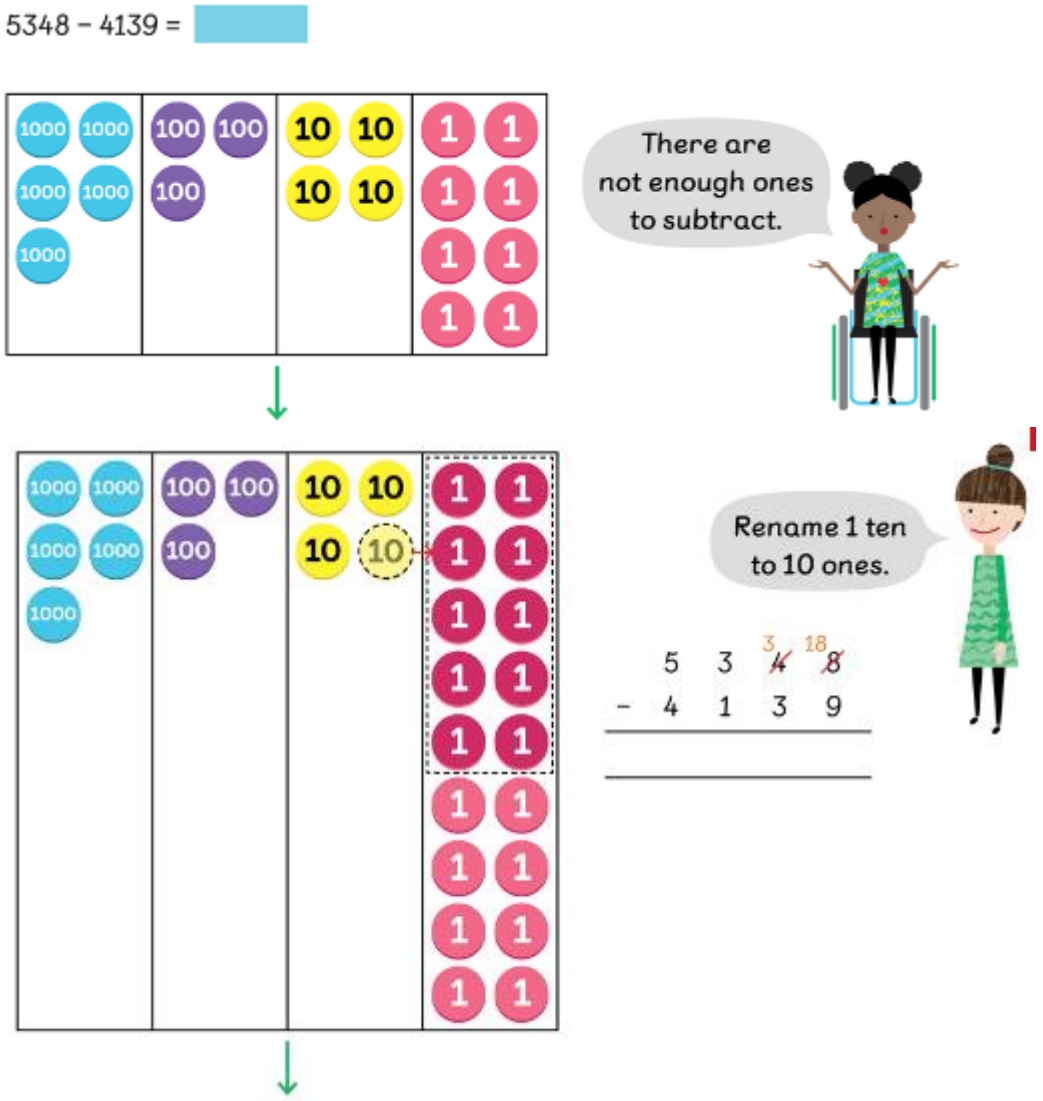	renamed ___ ten to ___ ones. I can check my answer using _____ (addition). I can split 7976 into …

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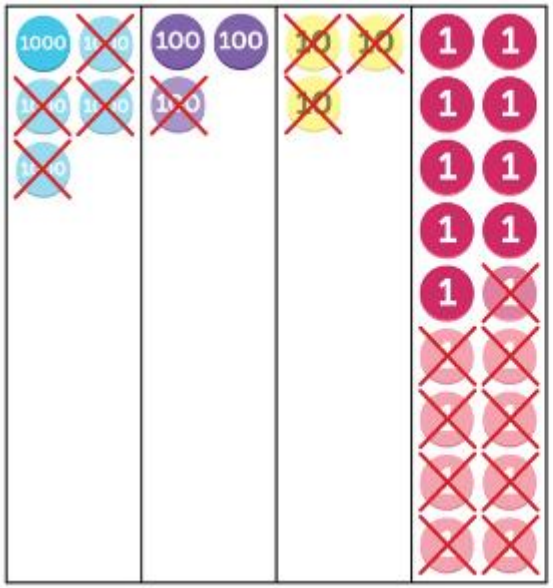
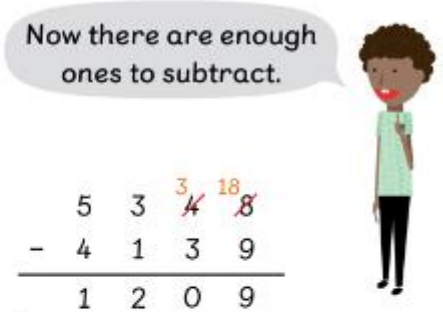




$$\begin{array}{r} 5\ 3\ {}^{3}\cancel{4}\ {}^{18}\cancel{8} \\ -\ 4\ 1\ 3\ 9 \\ \hline 1\ 2\ 0\ 9 \end{array}$$

Subtract the thousands.

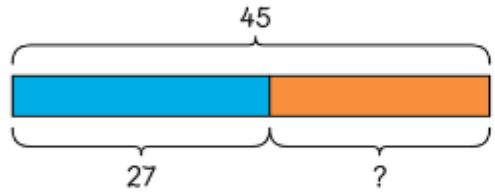
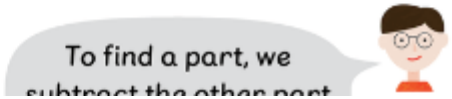
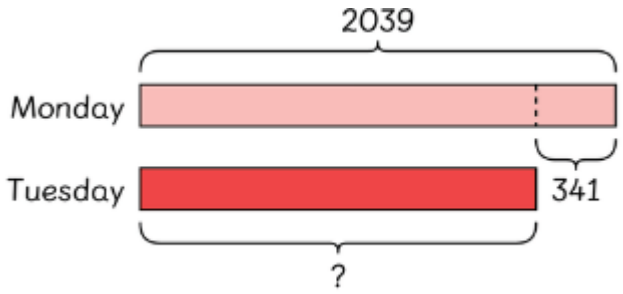
$$\begin{array}{r} 5\ {}^{4}\cancel{8}\ {}^{14}\cancel{4}\ 0\ 0 \\ -\ 1\ 3\ 7\ 0\ 0 \\ \hline 1\ 7\ 0\ 0 \end{array}$$

Subtract the ten thousands.

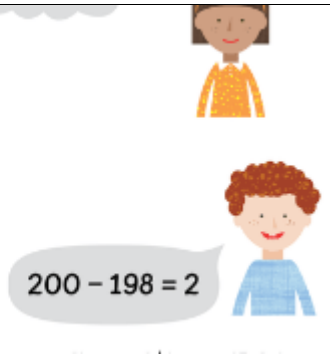
$$\begin{array}{r} {}^{4}\cancel{5}\ {}^{14}\cancel{4}\ 0\ 0 \\ -\ 1\ 3\ 7\ 0\ 0 \\ \hline 4\ 1\ 7\ 0\ 0 \end{array}$$

There were 41 700 more runners in the New York City marathon than in the Rome marathon.

Images taken from Maths No Problem Calculations Policy

Year 3 and 4	Find the difference using bar models	45 children are playing football and tennis. 27 children are playing football. How many children are playing tennis?   □ – 27 = □ □ children are playing tennis.  	Year 3 ● in total ● bar model ● labels ● part-whole bar model ● equation ● column addition **Sentence starters** I can show the problem using ___. I can find the total using ___. Year 4 ● difference ● find the difference ● subtract ● rename ● ones ● tens ● hundreds

Images taken from Maths No Problem Calculations Policy

			Sentence starters The difference between ___ and ___ is ___. There are not enough ones. I renamed ___ ten as ___ ones.
Year 4	Mental methods	3002 − 198 = 2804  3002 − 198 = 2802 + 2 	• difference • find the difference • subtract • addition • check • ones • tens • hundreds • thousands • rename • method • mentally **Sentence starters** Because I _____ here, I

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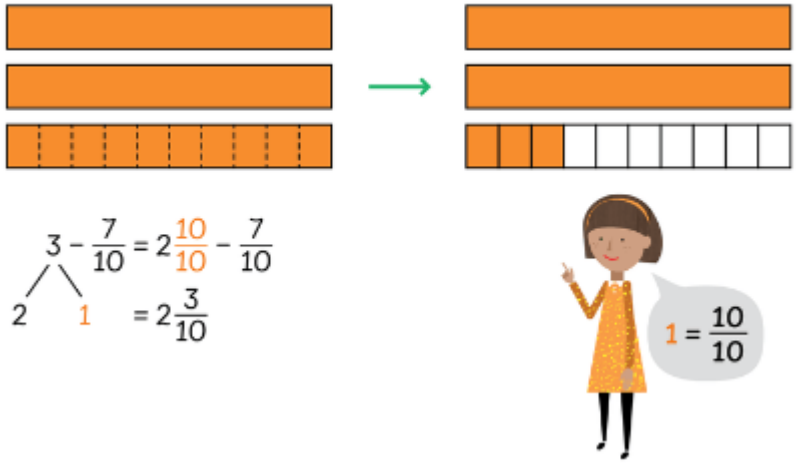
			have to _____. I split ___ like this. I prefer the _____ method.
Year 4 and 5	Subtracting fractions	Method 1  	• mixed number • fraction • part • whole number • proper fraction • improper fraction • numerator • denominator • equivalent • number line • subtract • count backwards **Sentence starters**

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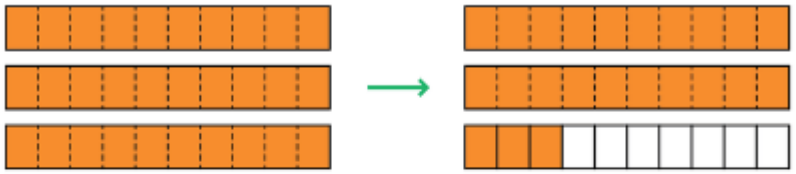
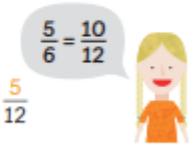
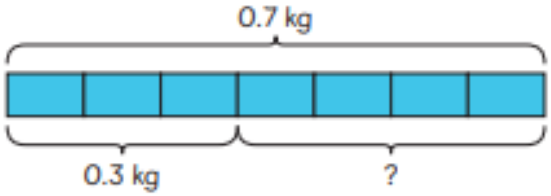
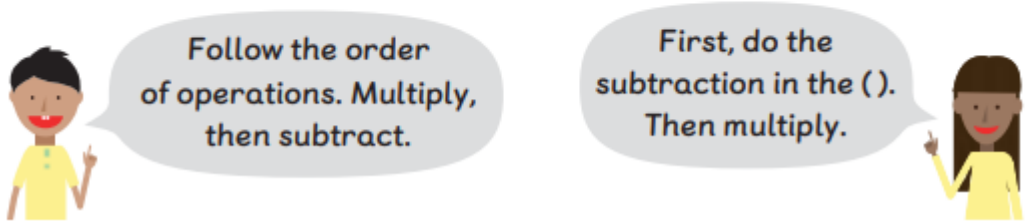
		Method 2  $3 - \frac{7}{10} = \frac{30}{10} - \frac{7}{10}$ $= \frac{23}{10}$ $\frac{23}{10} = 2\frac{3}{10}$  Lulu has $2\frac{3}{10}$ bottles of juice left.  $1 - \frac{1}{6} = \frac{6}{6} - \frac{1}{6}$ $= \frac{5}{6}$  $\frac{5}{6} - \frac{5}{12} = \frac{10}{12} - \frac{5}{12}$ $= \frac{5}{12}$ 	• 1 whole is __ tenths. • Lulu has ___ bottle of juice left. • I counted backwards in _____. Year 5 • find the difference • simplify • mixed number • equal • common denominator **Sentence starters** When I subtract fractions I need to make sure the denominators are _____.

Images taken from Maths No Problem Calculations Policy

Year 5	Subtracting decimals	Find the difference between 0.7 kg and 0.3 kg.  0.7 – 0.3 = 0.4	• tenths • decimal • decimal point • total • difference **Sentence starters** • ___ tenth(s) and ___ tenth(s) make ___ tenths. • The difference between ___ tenth(s) and ___ tenth(s) is ___tenth(s).

Images taken from Maths No Problem Calculations Policy

			• I added these decimals by… • I found the difference by...
Year 6	Subtraction within order of operations	First, carry out all the operations in ( ). Next, perform all the multiplication and division. Then, calculate all the addition and subtraction. $15 - 4 \times 3 = 15 - 12$ $= 3$ $(15 - 4) \times 3 = 11 \times 3$ $= 33$ 	• operation • calculation • add/addition • subtract/subtraction • multiply/multiplication • divide/division • mixed operation **Sentence starters** • I work from ____ [left] to ____ [right].

Images taken from Maths No Problem Calculations Policy

			• I ____ (multiply / divide), then ___ (add / subtract).

Multiplication

Year group	Objectives and strategies	Representations (Concrete, Pictorial, Abstract)	Vocabulary
Reception	Equal groups		

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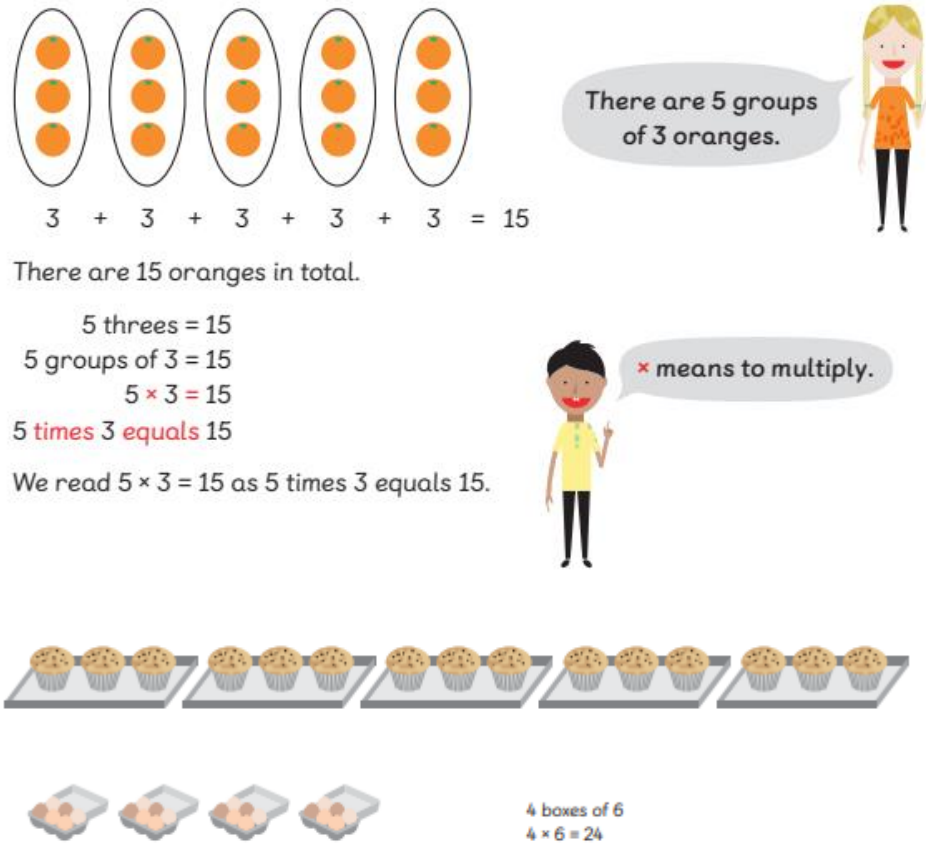
Year 1, 2, 3, 4	Making equal groups	 There are 2 ⚽ in each group. Each group has an equal number of ⚽. The balls are in equal groups. 	• equal groups • equal • How many are in each group? **Sentence starters** • There are ___ in each group. • There are ___ groups. • The ____ are in equal groups. • The ____ are not in equal groups. Year 2 total equal groups groups of times equals multiply multiplication sign **Sentence Starters**

Images taken from Maths No Problem Calculations Policy

			• There are ___ groups of ___ oranges. There are ___ oranges in total. • 5 times 3 equals ___. Year 3 • groups of • equal groups • addition • multiplication • equation Sentence starter • There are ___ groups of 3. • There are ___ equal groups. Year 4 • count on • sixes • multiple • multiply • times table

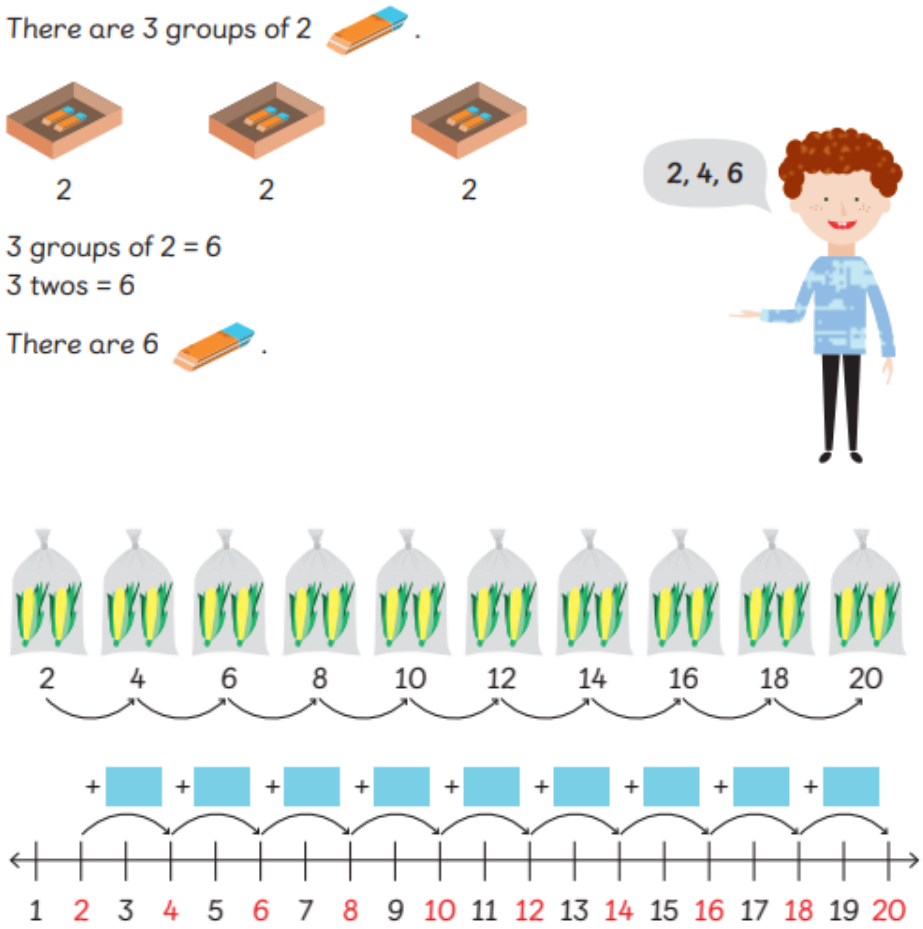
Images taken from Maths No Problem Calculations Policy

			● number pattern **Sentence starters** ● 6, 12, 18, ... ● Hannah bought ___ eggs in total.

Images taken from Maths No Problem Calculations Policy

	Repeated addition		•

Images taken from Maths No Problem Calculations Policy

Year 1 and 2	Counting in 2s, 5s and 10s		• groups • equal • How many are in each group? • twos • fives • tens **Sentence starters** • There are ___ in each group. • There are ___ groups. • There are ___ groups of ___. • ___ groups of ___ is ___. • ___ twos equals ___. • ___ fives equals ___. • ___ tens equals ___. Year 2 • altogether • equal groups

Images taken from Maths No Problem Calculations Policy

			● How many groups? ● How many in each group? ● groups of ● counting in twos ● times ● equals ● multiply ● multiplication sign ● equation, multiplication equation **Sentence starters** ● There are ___ pieces of sushi in 1 box. ● There are ___ groups. ● 1 group of 2 is equal to ___. ● 2 groups of 2 is equal to ___. ● 3 groups of 2 is equal to ___.

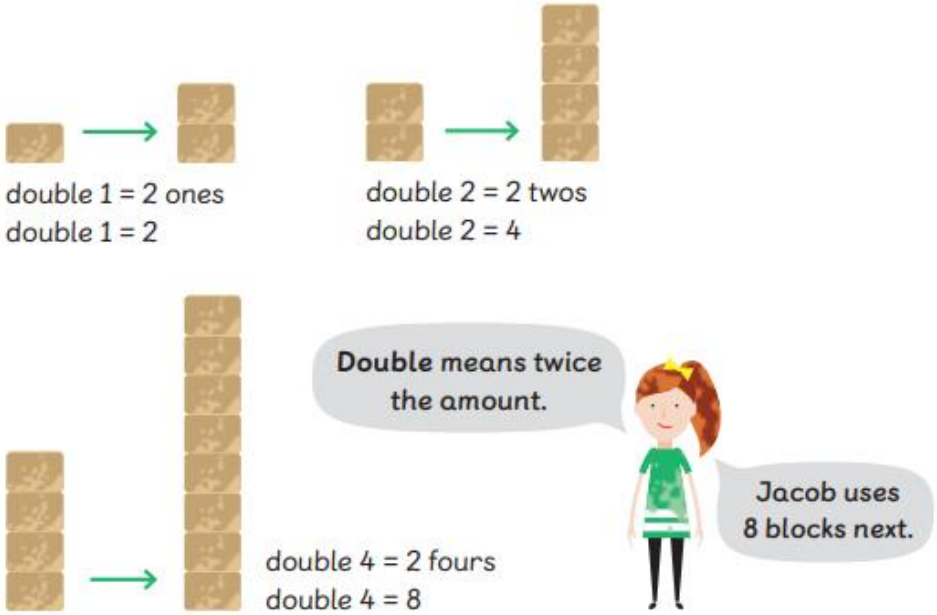
Images taken from Maths No Problem Calculations Policy

			● 4 groups of 2 is equal to ___. ● Emma made ___ pieces of sushi altogether.

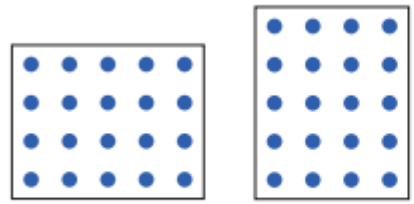
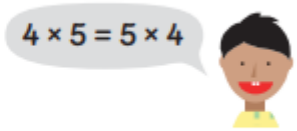
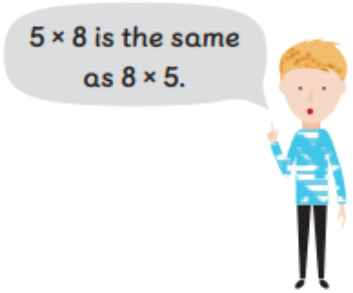
Images taken from Maths No Problem Calculations Policy

	Arrays	 3 rows of 5 3 fives = 15 There are 15 children altogether. 1 row of 5 = 5 2 rows of 5 = 10 3 rows of 5 = ☐ 	• row • array • equal • How many are there altogether? • twos • fives • tens **Sentence starters** • There are ___ rows of ___. • There are ___ in total.

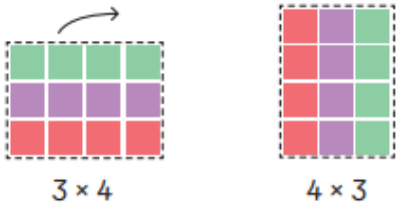
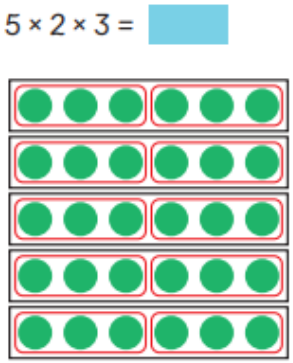
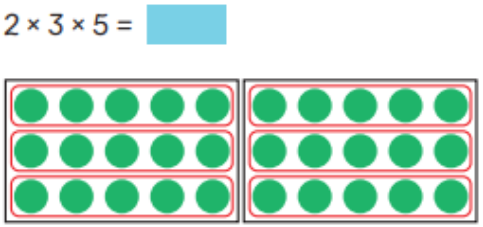
Images taken from Maths No Problem Calculations Policy

	Doubles		• double • twice the amount • ten frame **Sentence starters** • Double ___ is ___.

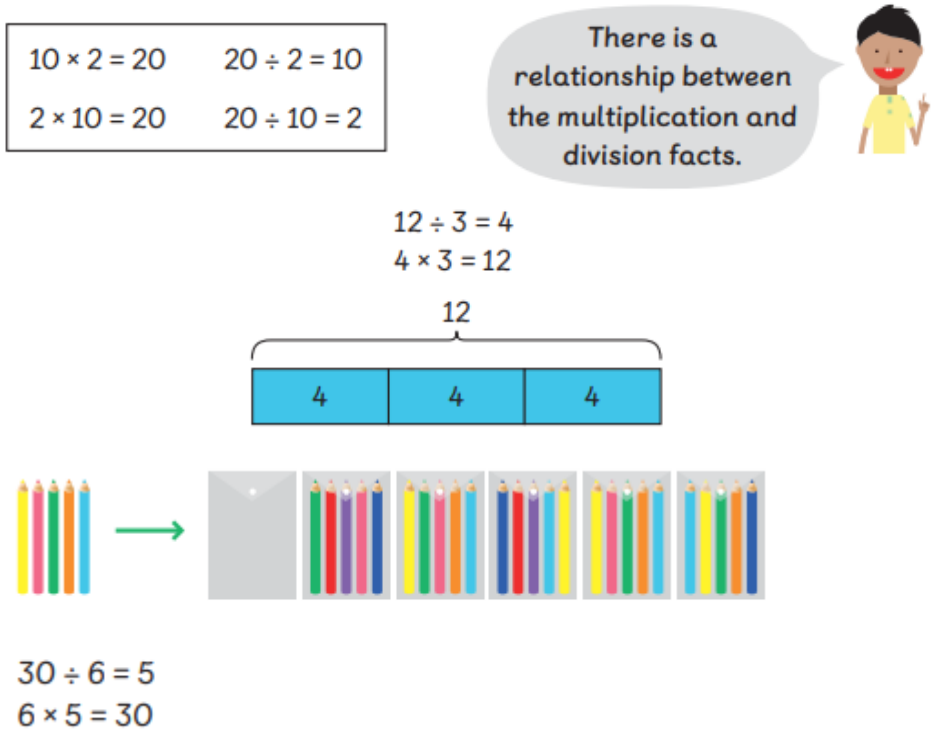
Images taken from Maths No Problem Calculations Policy

Year 2, 3, 4	Commutativity	 4 × 5 = 20 5 × 4 = 20   There are 5 rows of 8 mushrooms. 5 × 8 = 40  There are 8 rows of 5 mushrooms. 8 × 5 = 40  There are 40 mushrooms.	• groups of • equal to • times • equals • multiply • array **Sentence starters** • 3 × 5 is equal to 5 × ___. • 4 × 5 is equal to ___ × 4. Year 3 • equal groups • multiplication • doubling • one group less • one more group **Sentence starters** • There are ___ groups of 8.

Images taken from Maths No Problem Calculations Policy

		 3 × 4 = 4 × 3 3 × 4 is equal to 4 × 3.  	• There are ___ equal groups. Year 4 • multiplication • multiply • product • commutative • commutativity **Sentence starters** • 3 × 4 is _____ 4 × 3. • The product is the _____. • The method I prefer is _____. • I multiplied ___ first. • The method I prefer is ____. • The product is the ____.

Images taken from Maths No Problem Calculations Policy

Year 2, 3	Fact families		• groups of • equal groups • divide • equals • multiply • multiplication fact • division fact • multiplication and division fact family **Sentence starters** • ___ children can be put into teams of ___. ___ divided by ___ equals ____. There are ___ groups of ___ children. There are ___ equal teams. Year 3 • 3 equal groups • 4 equal groups • groups of 4

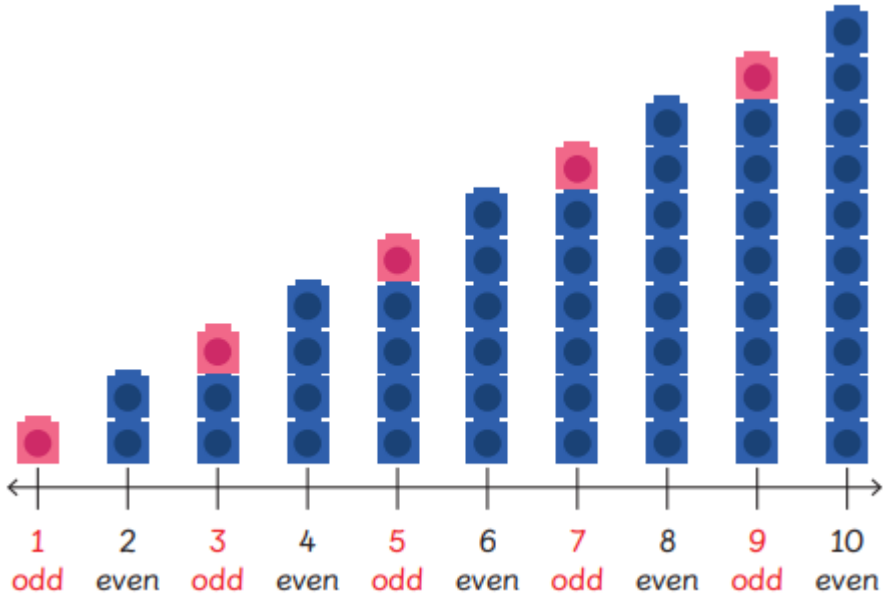
Images taken from Maths No Problem Calculations Policy

			● groups of 3 ● multiplication and division fact family **Sentence starters** ● When 12 is put into 4 equal groups each group has ___. ● When 12 is put into 3 equal groups each group has ___. ● When 12 is put into groups of 4 there are ___ equal groups. ● When 12 is put into groups of 3 there are ___ equal groups. ● 12 divided into groups of 4 is equal to ___. ● 12 shared between 4 is equal to ___. Year 4

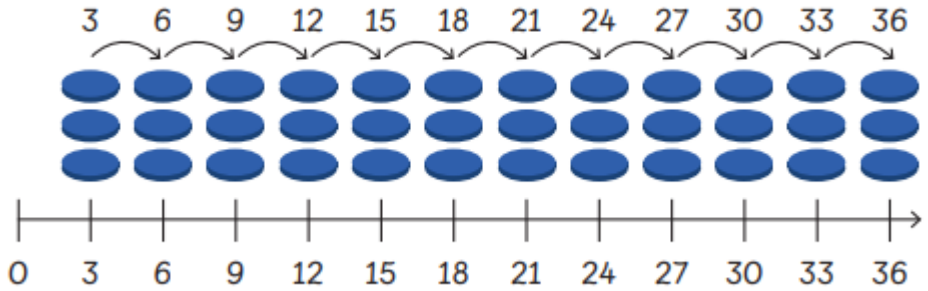
Images taken from Maths No Problem Calculations Policy

			• sharing • grouping • division • divide • quotient • dividend • divisor • divided by • equal groups • inverse **Sentence starters** • There are ___ in each group. • There are ___ groups. • The quotient is ___.

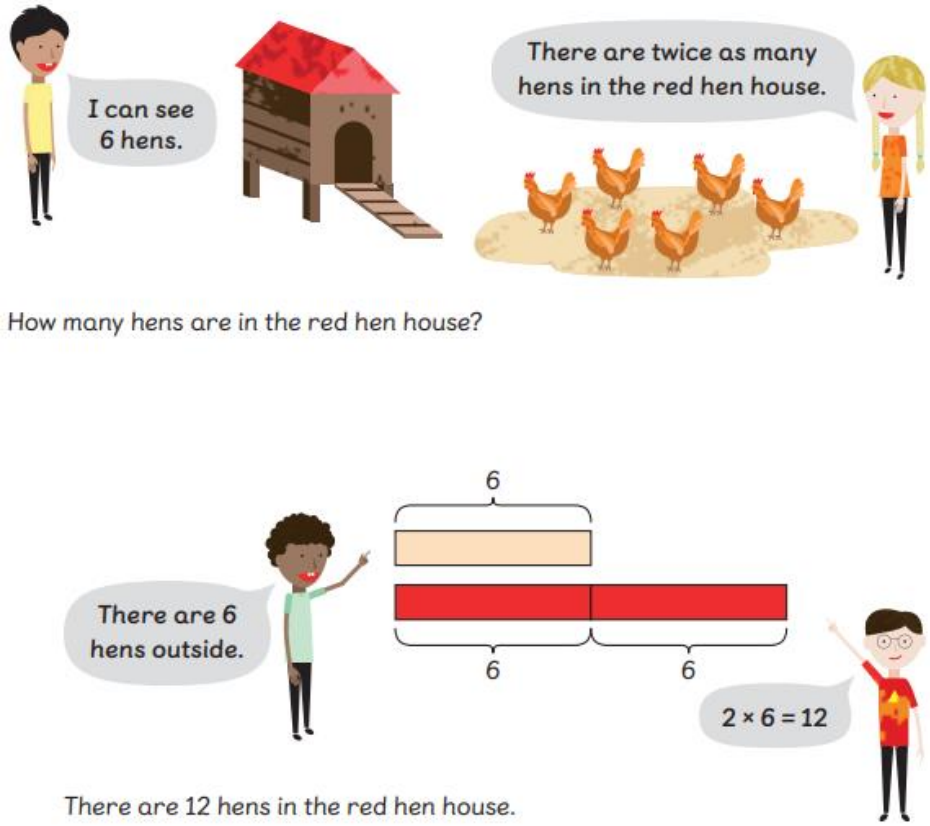
Images taken from Maths No Problem Calculations Policy

	Odd and even numbers		• groups of 2 • even number • odd number **Sentence starters** • ___ is an even number. • ___ is an odd number. • 2 is an _____ number. • 5 is an _____ number.

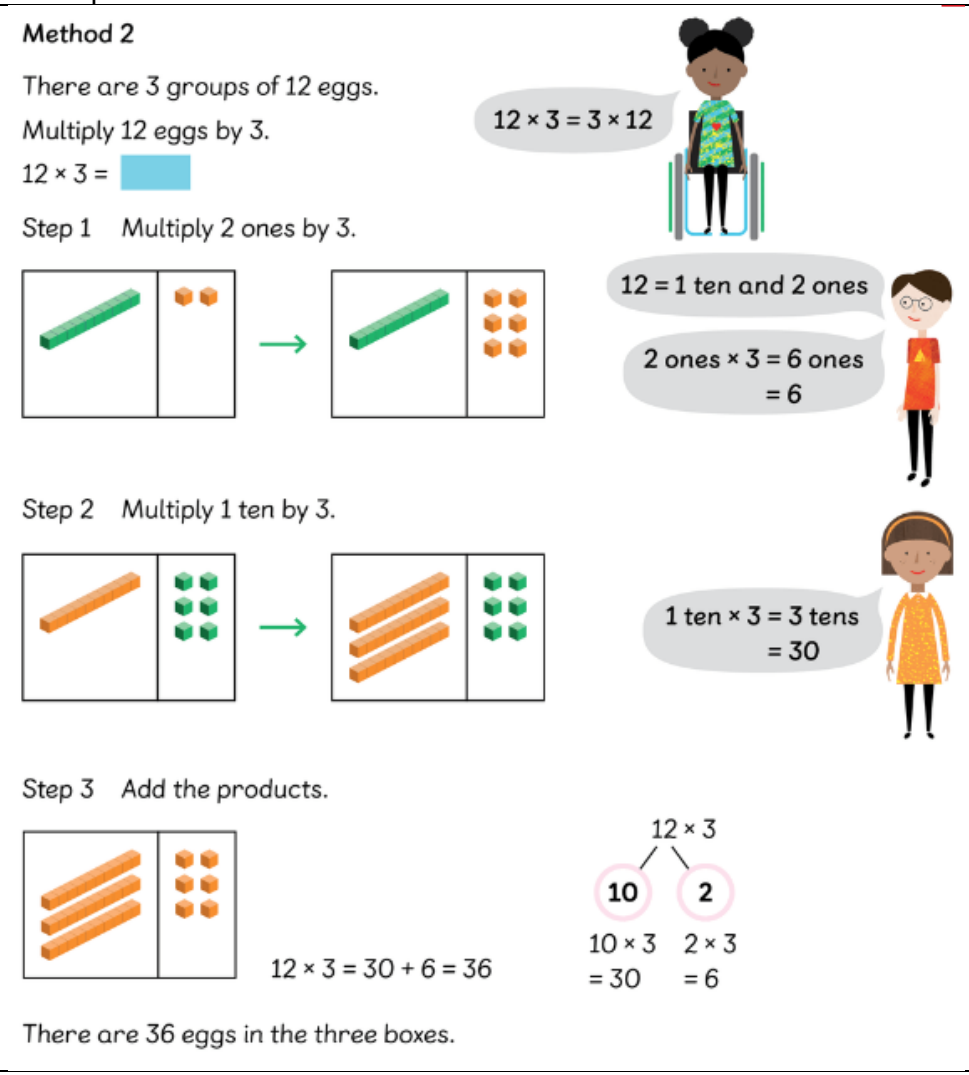
Images taken from Maths No Problem Calculations Policy

Year 3	Counting in 3s, 4s, and 8s		• groups of • equal groups • addition • multiplication • doubling • equation • one group less • one more group **Sentence starters** • There are ___ groups of 4. • There are ___ equal groups. •

Images taken from Maths No Problem Calculations Policy

Year 3	Multiplication using bar models		• twice as many • four times as many **Sentence starters** • There are ___ as many hens outside the hen house than in the hen house. • There are ___ times as many hens in the blue house than in the yellow house. • ___ is twice as many as 6. • 8 is four times as many as ___.

Images taken from Maths No Problem Calculations Policy

Year 3	Informal methods without renaming		• rename a 2-digit number as tens and ones • multiplying ones • multiplying tens **Sentence starters** • 12 is equal to ___ tens and ___ ones. • 12 × 3 is equal to 10 × _ and 2 × ___. • 12 can be partitioned into ___ and ___.

Images taken from Maths No Problem Calculations Policy

<table>
<tr>
<td>Year 3, 4, 5 and 6</td>
<td>Formal written method without renaming</td>
<td>
32 × 3 = ☐

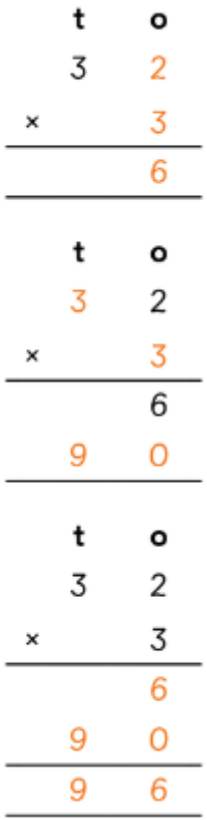
Step 1 Multiply 2 ones by 3.
2 ones × 3 = 6 ones

Step 2 Multiply 3 tens by 3.
3 tens × 3 = 9 tens

Step 3 Add the products.
6 + 90 = 96

32 × 3 = 96

There are 96 runners in 3 races.



</td>
<td>

rename a 2-digit number as tens and onesShowing 2-digit numbers using base 10 materials
multiplying ones
multiplying tens
number bonds
product

Sentence starters

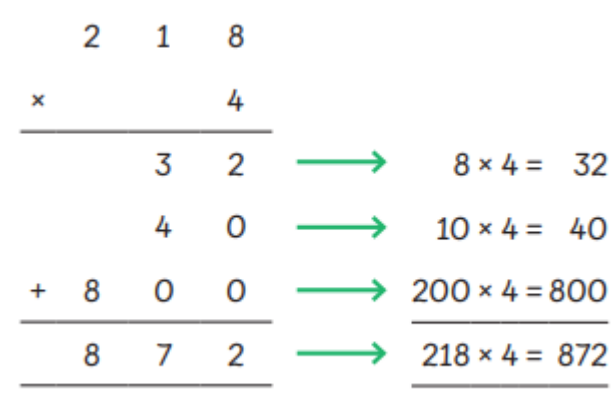
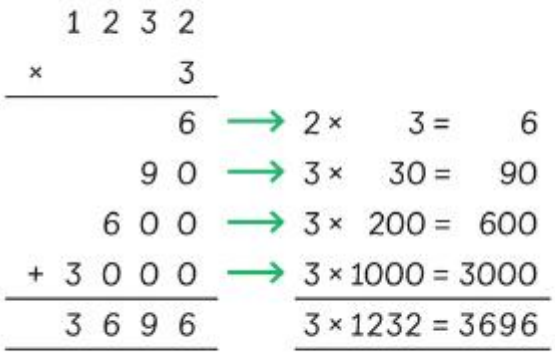
2 ones × 3 = ___ ones
3 tens × 3 = ___ tens
The product of 2 and 3 is ___.
The product of 30 and 3 is ___.

Year 4

multiplication
multiply
multiple of 10
product

</td>
</tr>
</table>

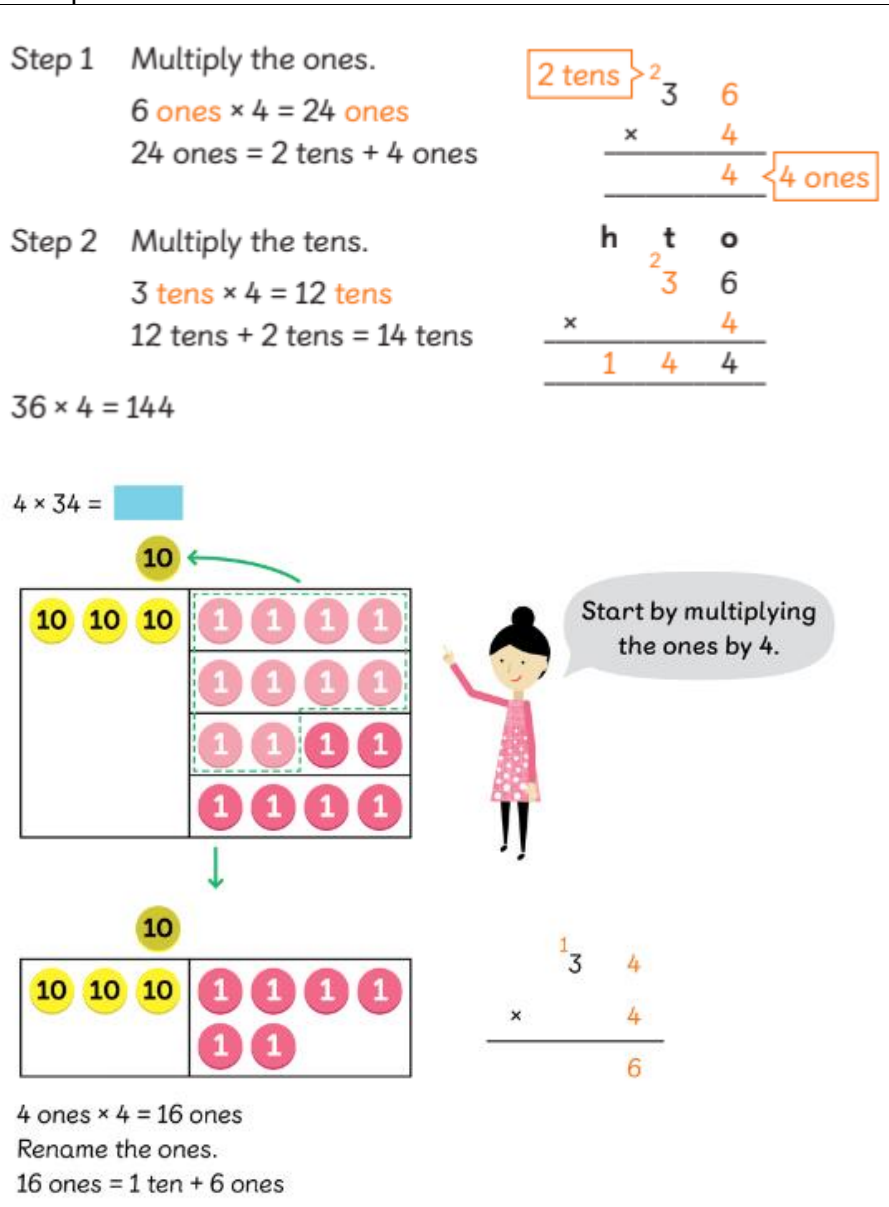
Images taken from Maths No Problem Calculations Policy

		   The baker made 3696 pies for Greenways in December.	• method • tens • ones • partition • place value **Sentence starters** • There are ___ eggs in each box. Lulu's mum is buying ___ boxes. • 12 = ___ tens + ___ ones • Lulu's mum is buying ___ eggs. Year 5 • ones • tens • hundreds • thousands • product

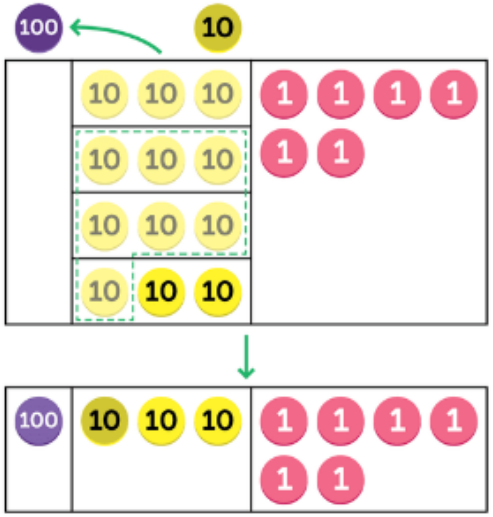
Images taken from Maths No Problem Calculations Policy

		310 × 23 = ☐ 3 1 0 × 2 3 9 3 0 → 310 × 3 = 930 + 6 2 0 0 → 310 × 20 = 6200 7 1 3 0 → 310 × 23 = 7130 There are 7130 question cards in 23 sets of the game.	**Sentence starters** The baker made _____ pies for Greenways in December. Year 6 • multiple of 10 • multiply • product • partition • ones • tens • hundreds • thousands • digit • estimate **Sentence starters** • I found the product by ____. • I multiplied by ___ by finding ___ multiplied by ___.

Images taken from Maths No Problem Calculations Policy

Year 3, 4, 5 and 6	Formal written method with renaming		• rename a 2-digit number as tens and ones • rename 10 ones as 1 ten • showing 2-digit numbers using base 10 materials • multiplying ones • multiplying tens • number bonds • product **Sentence starters** • The product of 6 and 3 is ___. • 18 ones is equal to ___ ten and ___ ones. • The product of 20 and 3 is ___. • 15 ones is equal to ___ ten and ___ ones.

Images taken from Maths No Problem Calculations Policy



$$\begin{array}{r} {}^{1}3\ 4 \\ \times\quad 4 \\ \hline 1\ 3\ 6 \end{array}$$

3 tens × 4 = 12 tens
Add the tens.
12 tens + 1 ten = 13 tens

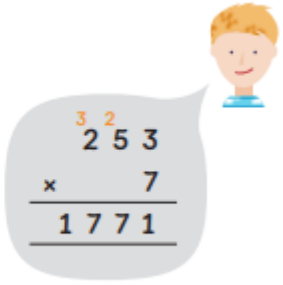
Rename the tens.
13 tens = 1 hundred + 3 tens

4 × 34 = 136

Sam's mum has used 136 beads in total.

Multiply 253 by 17.

$$\begin{array}{r} 2\ 5\ 3 \\ \times\quad 1\ 7 \\ \hline 1\ 7\ 7\ 1 \\ +\ 2\ 5\ 3\ 0 \\ \hline 4\ 3\ 0\ 1 \end{array}$$



- 35 × 3 is equal to 35 groups of ___.
- 35 × 3 is equal to 3 groups of ___.

Year 4

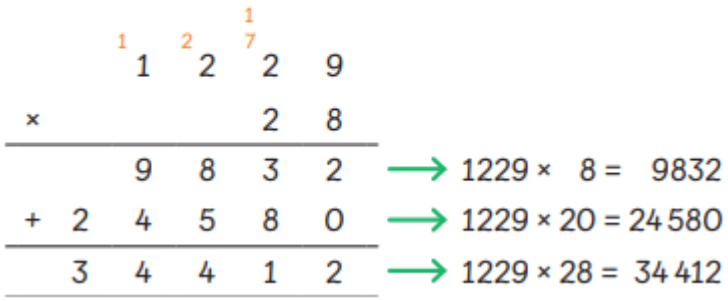
- multiplication
- multiply
- multiple of 10
- product
- method
- tens
- ones
- partition
- place value
- renaming

Sentence starters

- First, I multiply the ____.
- Then, I multiply the ____.

Year 5

Images taken from Maths No Problem Calculations Policy

		£1229 × 28 = ☐  	• ones • tens • hundreds • thousands • estimate • double • greatest product **Sentence starters** ___ hundreds times 3 equals ___ hundreds. Amira's dad needs to order _____ roof tiles altogether. Year 6 • multiple of 10 • multiply • product • partition • ones • tens • hundreds • thousands

Images taken from Maths No Problem Calculations Policy

<table>
<tr>
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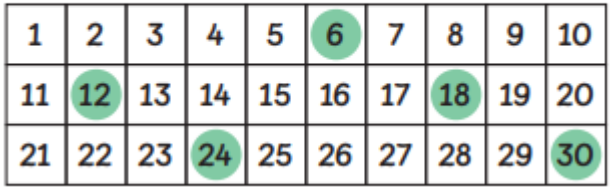
- digit
- estimate

Sentence starters

- I found the product by ____.
- I multiplied by ___ by finding ___ multiplied by ___.

</td>
</tr>
<tr>
<td>Year 4</td>
<td>Counting in 6s, 7s, 9s,</td>
<td>

Count on in sixes.



</td>
<td>

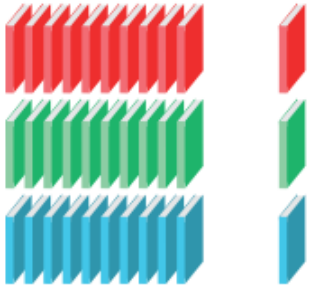
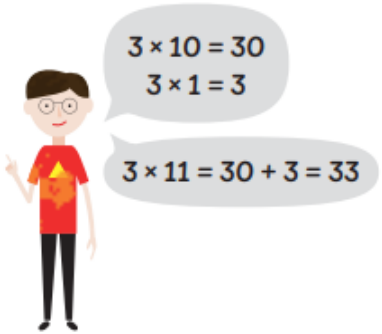
- count on
- sixes
- sevens
- nines
- multiple
- multiply
- times table
- number pattern

Sentence starters

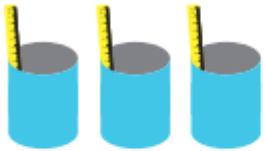
- 6, 12, 18, ...
- 7, 14, 21, ...
- 9, 18, 27, ...

</td>
</tr>
</table>

Images taken from Maths No Problem Calculations Policy

			• The next possible score is ___.
Year 4	Multiplying by 11 and 12	 10 + 10 + 10 = 30 1 + 1 + 1 = 3 	• double • multiple • multiply • times table • number pattern **Sentence starter** • Each shelf has ___ books. • There are ___ books on the shelves altogether. • ___ × 11 is one group of 11 less/more than ___ × 11.

Images taken from Maths No Problem Calculations Policy

			• ___ × 11 is double the groups in ___ × 11
Year 4	Multiplying by 0 and 1	 3 pots of 1 ruler 3 × 1 = 3  3 empty pots 3 × 0 = 0	• multiply • multiplication • product • zero • decrease • multiplication story **Sentence starters** • When we multiply by zero the product is ____.

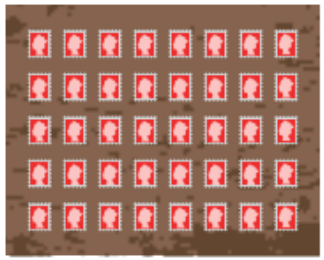
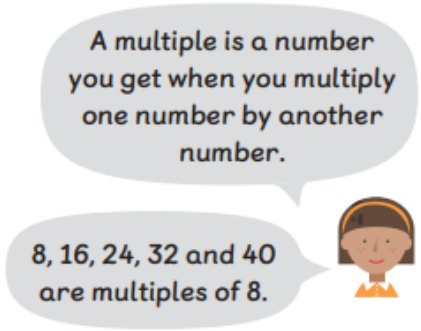
Images taken from Maths No Problem Calculations Policy

Year 4, 5	Multiplying by 10 and 100	30 is equal to 3 tens. 5 × 3 = 15 5 × 3 tens = 15 tens = 150  5 × 30 = 150 5 × 1000 = ____ 5 × 1 thousand = 5 thousands 5 × 1000 = 5000	• multiplication • multiply • multiple of 10 • ten times greater than • product • method • tens • repeated addition **Sentence starters** • I know that 6 × 2 = 12, so, 6 × 2 tens = ___ tens. • I multiplied ___ first. • The method I prefer is ____. Year 5 • tens • hundreds • thousands • greater than

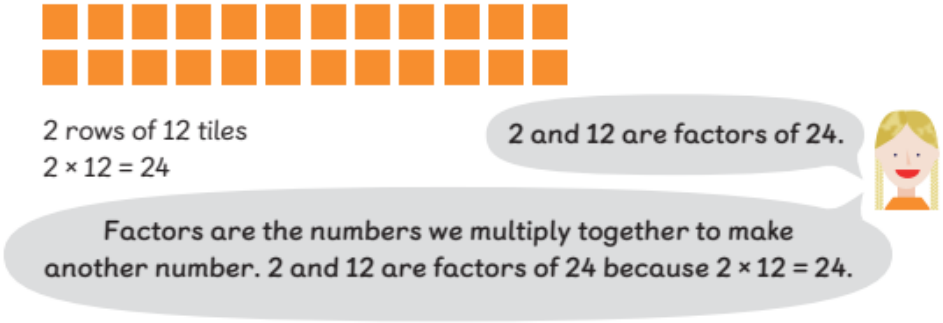
Images taken from Maths No Problem Calculations Policy

			Sentence starters 100 is 10 times greater than ___. 1000 is 10 times greater than ___.

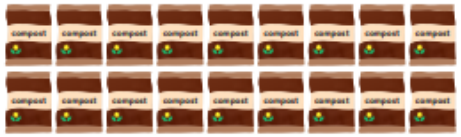
Images taken from Maths No Problem Calculations Policy

Year 5	Multiples	 1 row of 8 stamps. 1 × 8 = 8  2 rows of 8 stamps. 2 × 8 = 16  3 rows of 8 stamps. 3 × 8 = 24  4 rows of 8 stamps. 4 × 8 = 32  5 rows of 8 stamps. 5 × 8 = 40 Sam has 40 stamps altogether. 	• multiple **Sentence starters** The first multiple of ___ is ___. The second multiple of ___ is ___. The third multiple of ___ is ___. The first five multiples of ___ are ... The first 12 multiples of ___ are ...

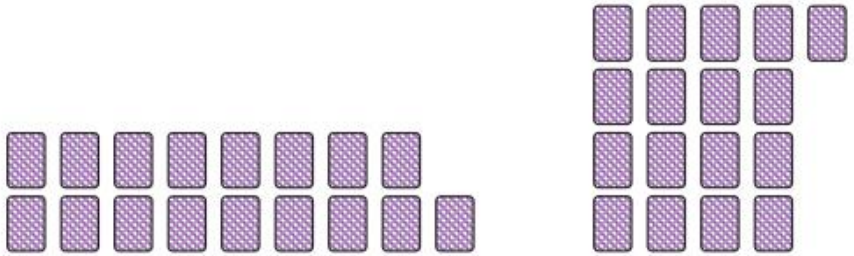
Images taken from Maths No Problem Calculations Policy

Year 5	Finding factors		• factor • multiple **Sentence starters** The factors of 24 are ... The factors of 6 are ...

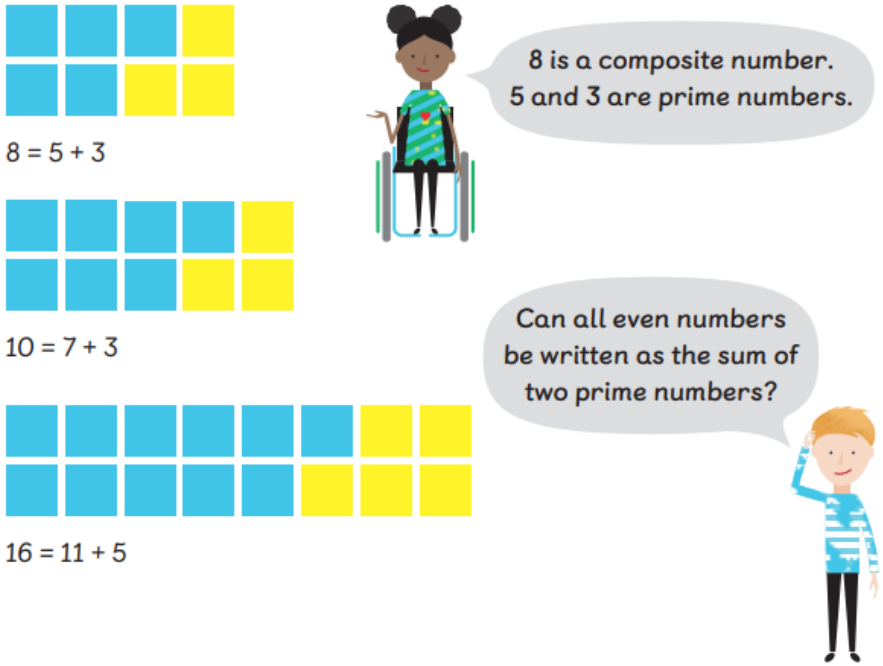
Images taken from Maths No Problem Calculations Policy

Year 5 and 6	Common factors	**2** What are the common factors of 12 and 30? $12 = 1 \times 12$ $30 = 1 \times 30$ $12 = 2 \times 6$ $30 = 2 \times 15$ $12 = 3 \times 4$ $30 = 3 \times 10$ $30 = 5 \times 6$ The common factors of 12 and 30 are 1, 2, 3 and 6. 1 is a factor of every number. So, 1 is a common factor of any two numbers.  1 row of 18 bags $1 \times 18 = 18$  2 rows of 9 bags $2 \times 9 = 18$  3 rows of 6 bags $3 \times 6 = 18$ 1, 2, 3, 6, 9 and 18 are factors of 18.	• factor • common factor **Sentence starters** The common factors of 10 and 15 are ... The common factors of 12 and 30 are ... Year 6 • factor • multiple • common factor • greatest common factor **Sentence starters** • I know that ___ is not a factor of ___ and ___. • I know that ___ is a factor of ___. • The factors of ___ and ___ are...

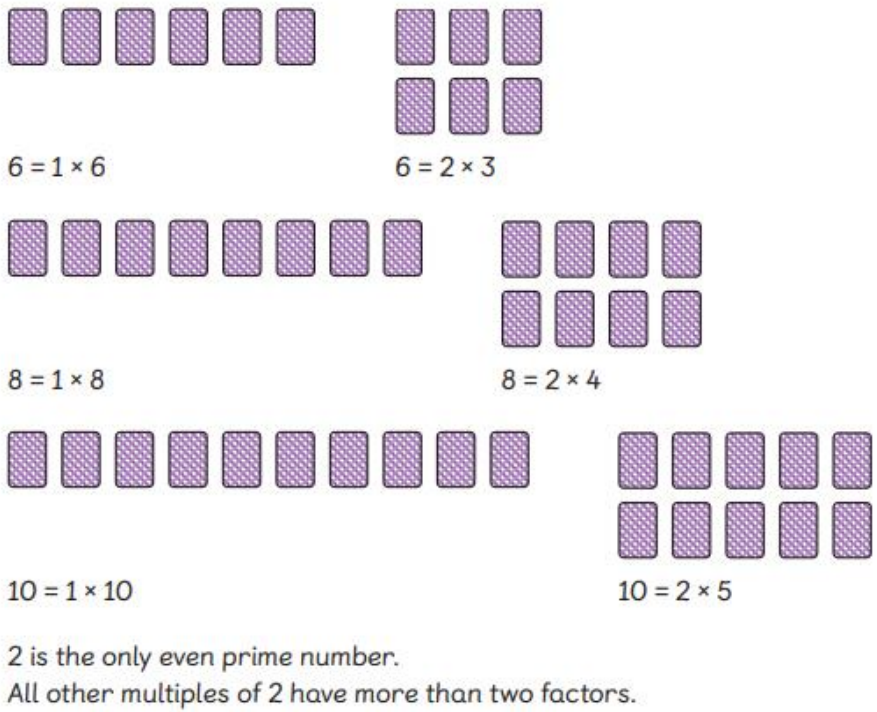
Images taken from Maths No Problem Calculations Policy

Year 5 and 6	Prime numbers	 This is a rectangle.  These are not rectangles. There is only one way to arrange 17 cards. $17 = 1 \times 17$ 17 only has two factors, 1 and itself. 17 is a prime number.	• factor • prime number **Sentence starters** The factors of ___ are ... A prime number is … Year 6 • prime numbers • factor • multiple **Sentence starters** • A prime number is...

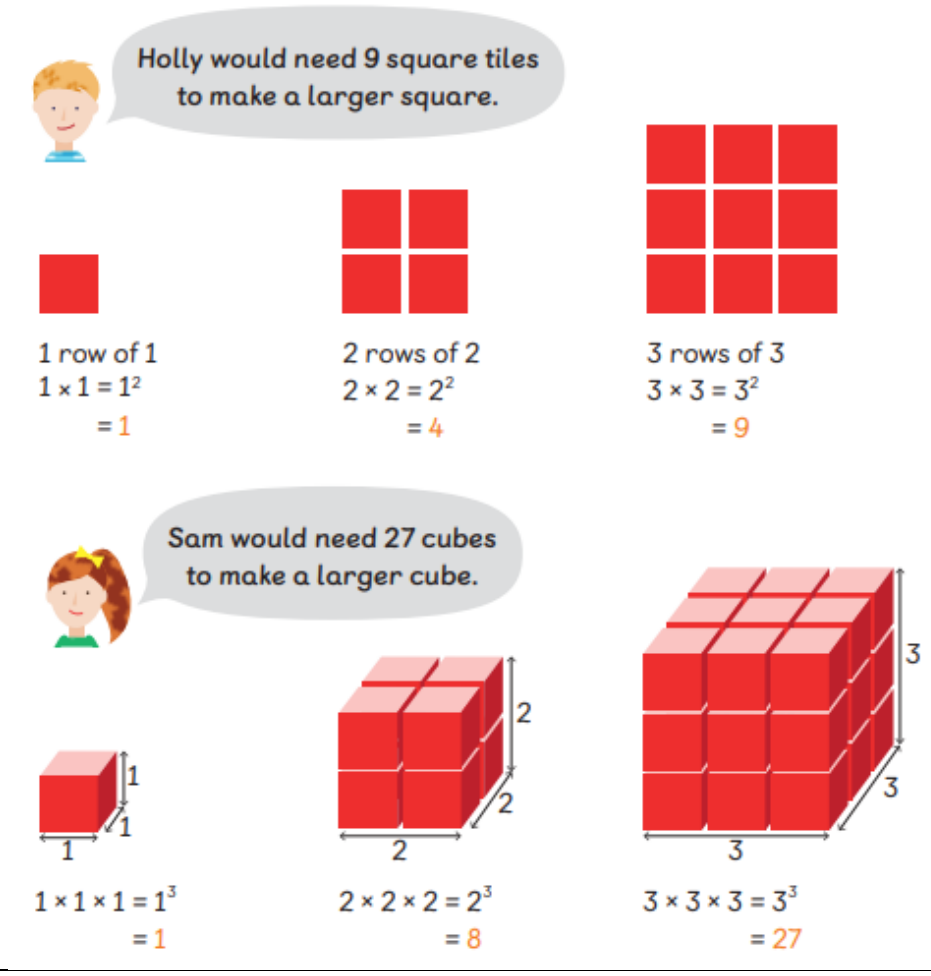
Images taken from Maths No Problem Calculations Policy

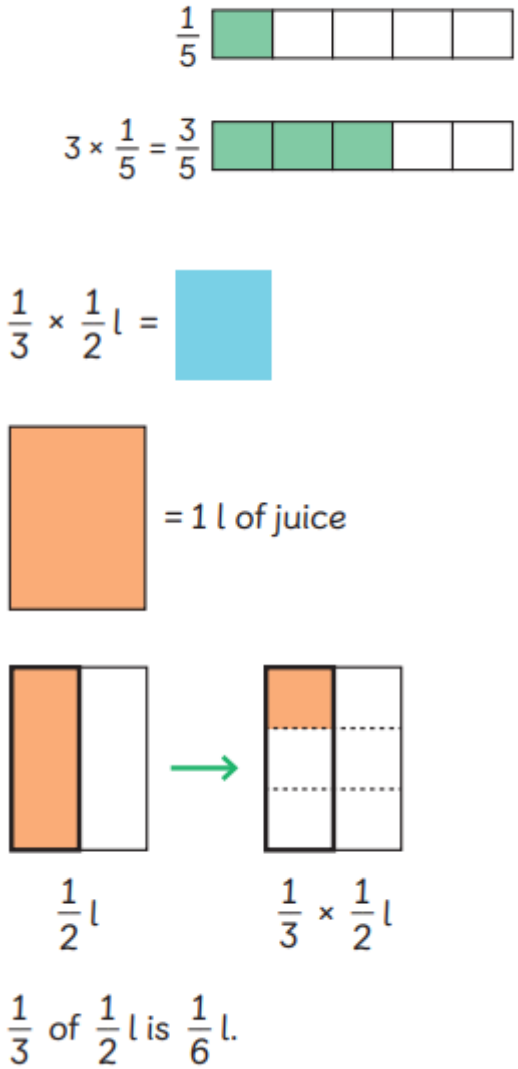
Images taken from Maths No Problem Calculations Policy

Year 5	Composite numbers		• prime number • composite number • even number • odd number • factor • multiple • rectangular/square arrangements • two squared (2^2) **Sentence starters** A prime number is ... A composite number is ... Even numbers from 1 to 10 are ... In the numbers from 2 to 10, _____ are prime numbers and _____ are composite numbers.

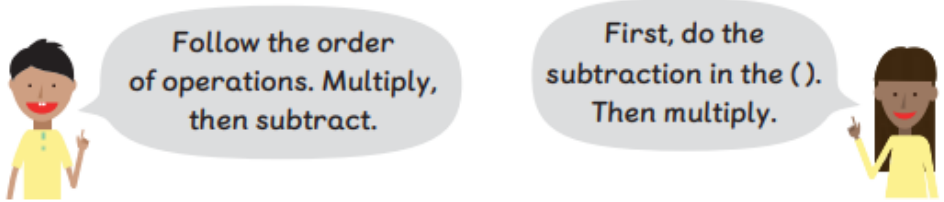
Images taken from Maths No Problem Calculations Policy

Year 5	Square and cube numbers		• square number • cube number • squared ² • cubed ³ **Sentence starters** The first three square numbers are ... The first three cube numbers are ... ___ is a square number. ___ is a cube number.

Images taken from Maths No Problem Calculations Policy

Year 5 and 6	Multiplying fractions		• proper fraction • improper fraction • mixed number • whole number • numerator • denominator • simplify • ___ times as much • multiply **Sentence starters** I can multiply the _____ by the whole number to get the answer. Year 6 • fraction • proper fraction • multiply • simplest form **Sentence starters** • My bar model shows...

Images taken from Maths No Problem Calculations Policy

			• The answer in its simplest form is ___.
Year 6	Order of operations	First, carry out all the operations in ( ). Next, perform all the multiplication and division. Then, calculate all the addition and subtraction. $15 - 4 \times 3 = 15 - 12 = 3$ $(15 - 4) \times 3 = 11 \times 3 = 33$ 	• operation • calculation bracket • add/addition • subtract/subtraction • multiply/multiplication • divide/division • mixed operation **Sentence starters** • I work from ____ [left] to ____ [right]. • I ____ (multiply / divide), then ____ (add / subtract).

Images taken from Maths No Problem Calculations Policy

<table>
<tr><td></td><td></td><td></td><td>

- I calculate what is inside the brackets ____ [first].

</td></tr>
<tr><td>Year 6</td><td>Common multiples</td><td>

Multiples of 4	4	8	12	16	20	24	28	32	36	40	44	48
Multiples of 6	6	12	18	24	30	36	42	48	54	60	66	72
Multiples of 8	8	16	24	32	40	48	56	64	72	80	88	96

24 and 48 are common multiples of 4, 6 and 8.

</td><td>

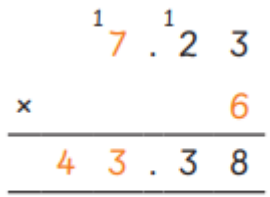
- multiple
- common multiple
- multiplication facts
- equal number

Sentence starters

- ___ is a multiple of ___.
- The first 3 common multiples of ___ and ___ are...

</td></tr>
</table>

Images taken from Maths No Problem Calculations Policy

Year 6	Multiplying decimals		• decimal • decimal place • decimal point • fraction • ones • tenths • hundredths • thousandths • place value • litres • simplest form • approximately equal to **Sentence starters** Charles' dad should use ____. I used the decimal place value counters to show___.

Images taken from Maths No Problem Calculations Policy

Division

Year group	Objectives and strategies	Representations (Concrete, Pictorial, Abstract)	Vocabulary

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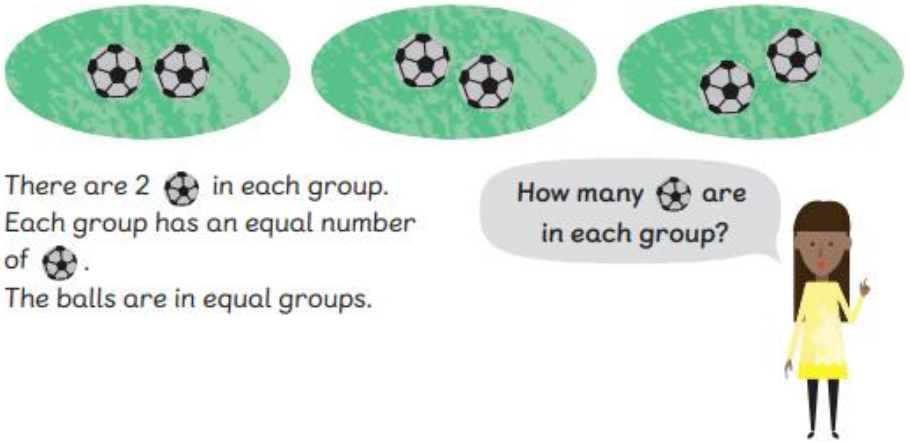
Reception	Equal groups		
Year 1	Equal groups		• equal groups • equal • How many are in each group? **Sentence starters** • There are ___ in each group. • There are ___ groups. • The ____ are in equal groups. • The ____ are not in equal groups.

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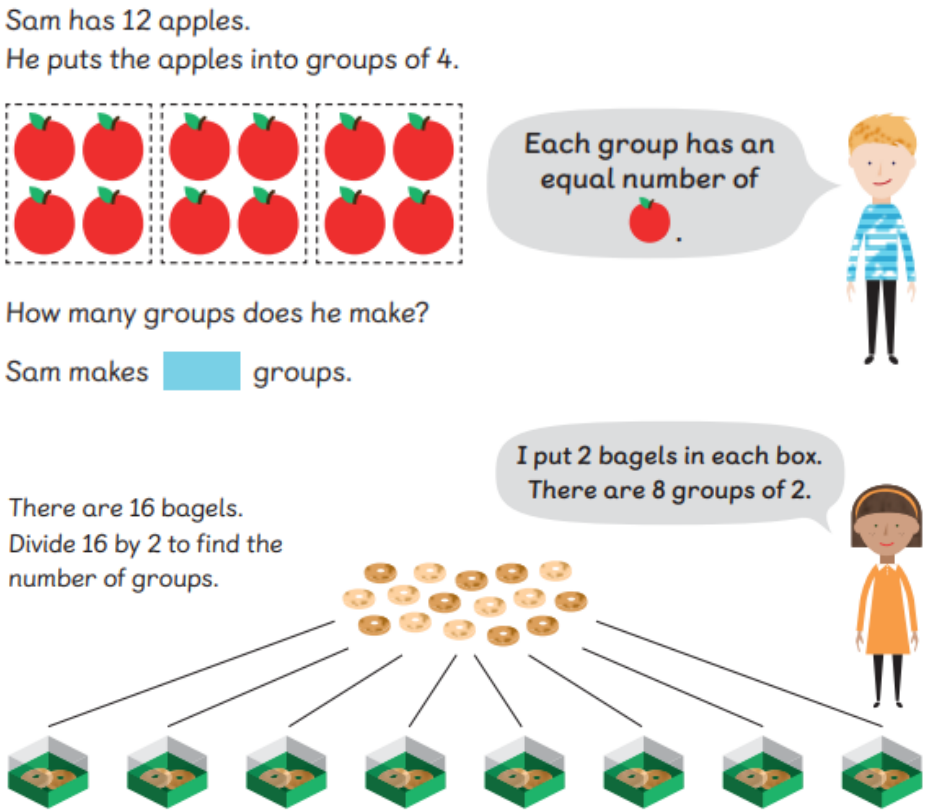
Year 1, 2	Grouping		• groups • equal • equal groups • divide **Sentence starters** • Each group has an equal number of ____. • I can divide ___ into groups of ___. Year 2 • equal groups • groups of • grouping • How many groups? • divide • equals • division equation **Sentence starters**

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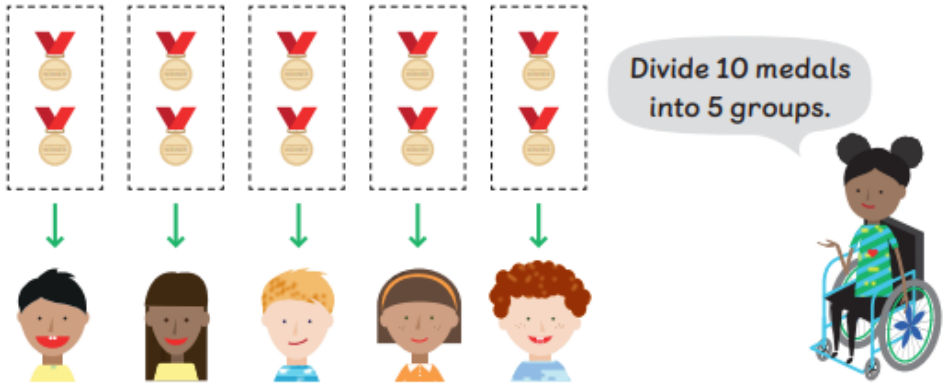
			• There are ___ bagels. There are ___ bagels in each box. • ___ divided by ___ equals ___. There are ___ boxes.
Year 1, 2	Sharing	10 medals are shared equally among 5 friends. How many medals does each friend get?  Each friend gets 2 medals.	• equal • share • share equally • divide • groups **Sentence starters** • I share ___ [stickers] equally between ___ friends. Each friend gets___. Year 2 • sharing • sharing equally

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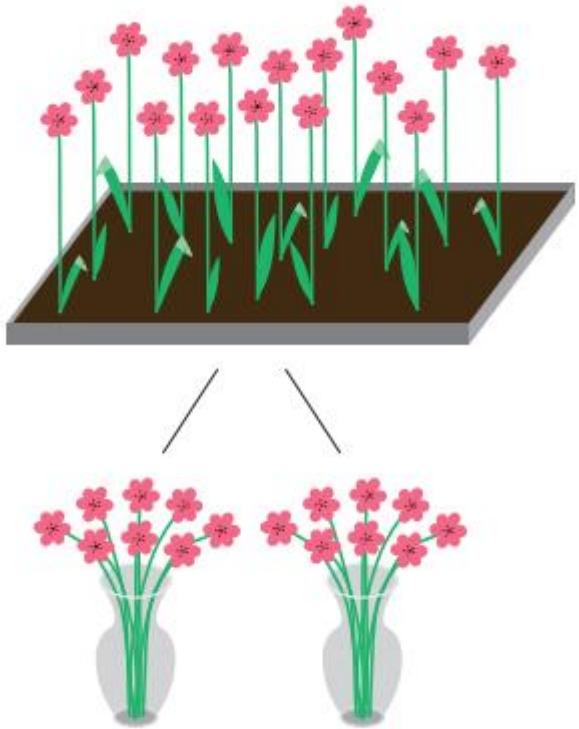
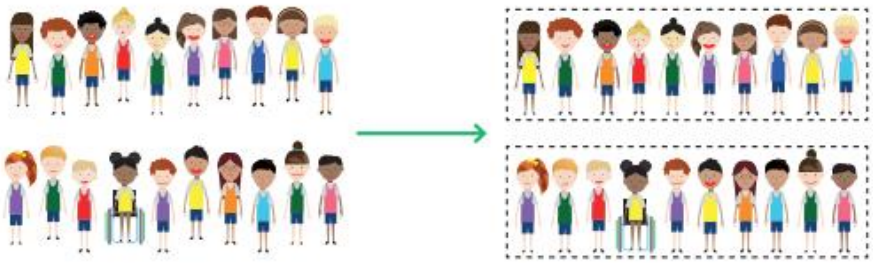
		There are 16 flowers. Elliott cuts the flowers and puts them equally into 2 vases.  There are 8 flowers in each vase. 16 ÷ 2 = 8	• How many in each group? • equal groups • divide • equals • division equation **Sentence starters** • There are ___ flowers. Elliott puts them equally into ___ vases. ___ divided by ___ equals ___.There are ___ flowers in each vase.

Images taken from Maths No Problem Calculations Policy

<table>
<tr>
<td>Year 2</td>
<td>Division by 2, 5 and 10</td>
<td>
20 children can be put into teams of 10.

20 ÷ 10 = 2
There are 2 equal teams.
There are 2 groups of 10 children.
2 × 10 = 20

10 × 2 = 20 20 ÷ 2 = 10
2 × 10 = 20 20 ÷ 10 = 2
There is a relationship between the multiplication and division facts.

This is a multiplication and division fact family.
</td>
<td>

groups of 2
2 equal groups
divide
equals
multiply

Sentence starters

There are ___ children. Each seat fits ___ children. ___ divided by ___ equals ___. The children will fill ___ seats.

</td>
</tr>
<tr>
<td>Year 3</td>
<td>Dividing by 3, 4 and 8</td>
<td>
Sam put 32 cobs of corn into 4 equal groups.

4 groups of 8 is 32.
4 × 8 = 32

32 ÷ 4 = 8
Each group has 8 cobs of corn.
</td>
<td>

3 equal groups
groups of 3
multiplication and division fact family

Sentence starters
</td>
</tr>
</table>

Images taken from Maths No Problem Calculations Policy

			● When 12 children are put into groups of 3 there are ___ equal groups. ● When 12 children are put into 3 groups there are ___ children in each group. ● 4 groups of 3 make ___. ● 3 groups of 4 make ___.

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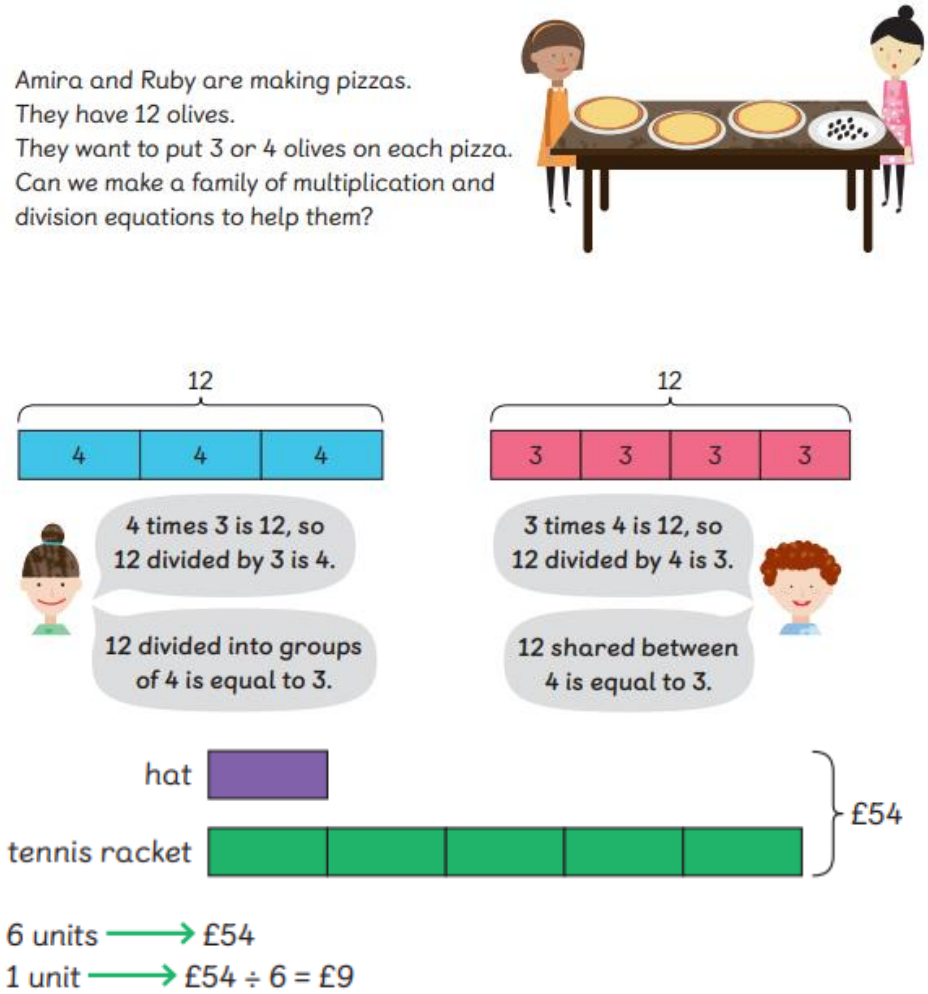
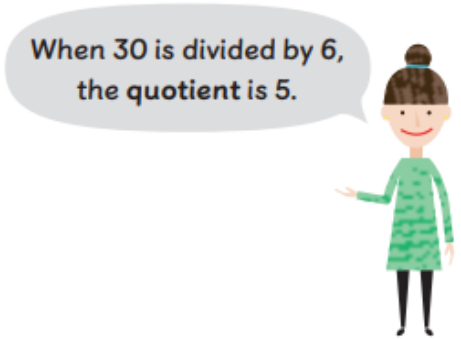
Year 3, 4	Division using bar models		• 2 times as many • twice as many **Sentence starters** • I can show twice as many by using ___ bars. • I can show 2 times as many by using ___ bars. • I can show 3 times as many by using ___ bars. • I can show 4 times as many by using ___ bars. Year 4 • sharing • grouping • division • divide • multiplication

Images taken from Maths No Problem Calculations Policy

			• multiply • quotient • dividend • divisor • divided by • equal groups • remainder • odd • even • inverse **Sentence starters** • There are ___ in each group. • There are ___ groups. • There are ___ groups of ___. • ___ groups of ___ makes ___ groups of ___.

Images taken from Maths No Problem Calculations Policy

Year 4	Dividing by 6, 7 and 9	 $30 \div 6 = 5$ $6 \times 5 = 30$ Each packet can hold 5 pencils. 	• sharing • grouping • division • divide • quotient • dividend • divisor • divided by • equal groups • inverse **Sentence starters** • There are ___ in each group. • There are ___ groups. • The quotient is ___.

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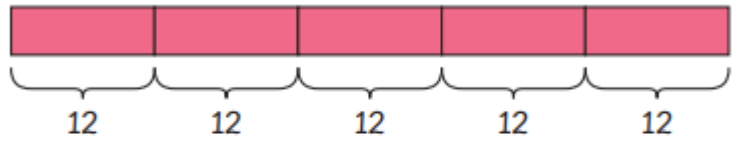
Year 4	Dividing by 11 and 12	 5 × 12 = ☐ ☐ ÷ 12 = ☐ 12 × 5 = ☐ ☐ ÷ 5 = ☐	• sharing • grouping • division • divide • quotient • dividend • divisor • divided by • equal groups • inverse • commutativity • multiplication and division fact family Sentence starters • The quotient is __. • There are ___ in each group. • There are ___ groups. • 3 groups of 12 is ___ × ___.

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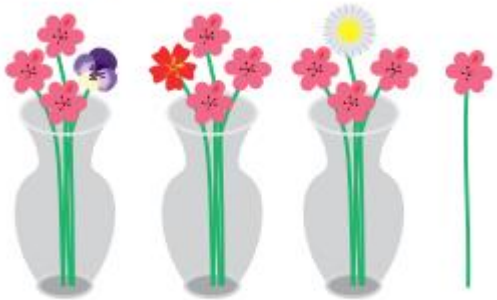
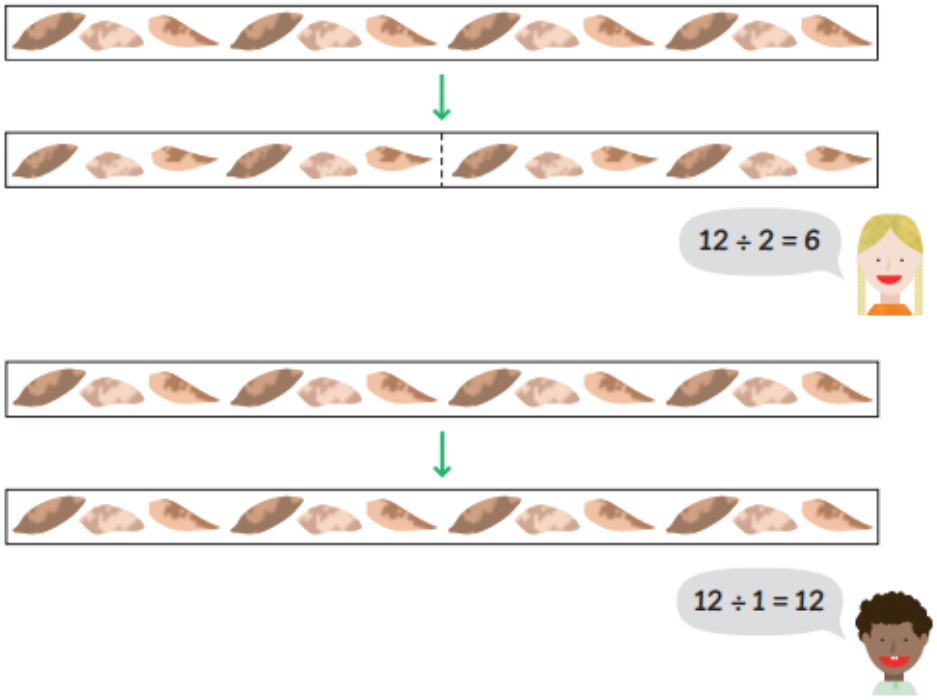
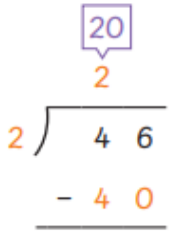
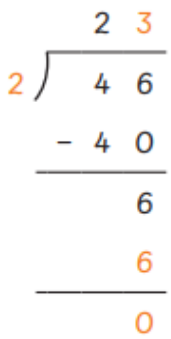
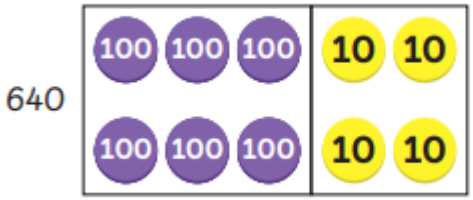
			• 3 × 12 is equal to ___ × ___.
Year 4	Dividing with remainders	There are 13 flowers.  13 ÷ 3 = 4 with 1 left over The quotient is 4. The remainder is 1.	• sharing • grouping • division • divide • quotient • dividend • divisor • divided by • equal groups • remainder • odd • even • inverse

Images taken from Maths No Problem Calculations Policy

			Sentence starters • There are ___ in each group. • There are ___ groups. • The quotient is ___. • The remainder is ___. • There are ___ left over. • I noticed that ...
Year 4	Dividing by 1		• divide • division • dividend • divisor • quotient Sentence starters • There is/are ___ sweet potato(es) in each basket.

Images taken from Maths No Problem Calculations Policy

Year 4, 5 and 6	Dividing without remainders	Step 1 Divide 4 tens by 2.  4 tens ÷ 2 = 2 tens 40 ÷ 2 = 20  Step 2 Divide 6 ones by 2.  6 ones ÷ 2 = 3 ones 6 ÷ 2 = 3 46 ÷ 2 = 23    	• division • divide • sharing • grouping • repeated subtraction • quotient • remainder • ones • tens • hundreds • place value **Sentence starters** • I divide ___ tens by ___. • I divide ___ ones by ___. Year 5 • ones • tens • hundreds • thousands • partition

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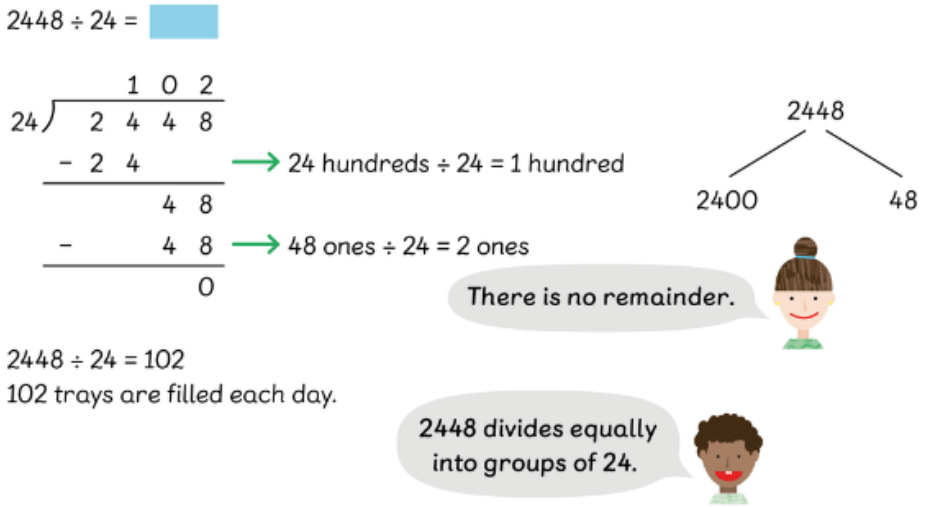
		2448 ÷ 24 = 	**Sentence starters** Each class will get ___ pencils. Year 6 • divide • quotient • tens • hundreds • bar model **Sentence starters** • ___ boxes are needed. • ___ equals ___ tens.

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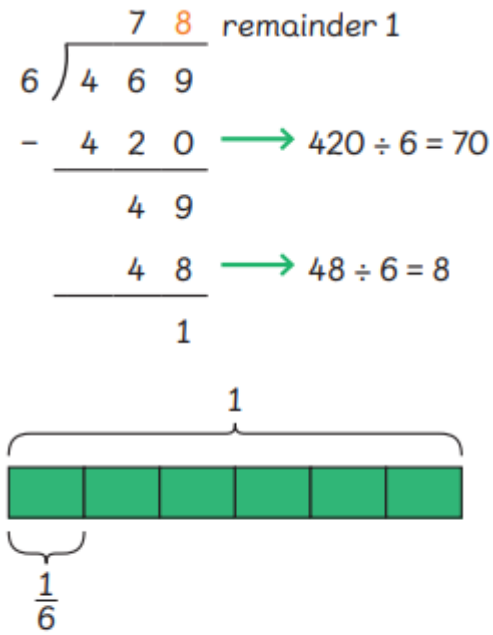
Year 4, 5 and 6	Dividing with remainders	**Method 2** $\begin{array}{r} 1 \\ 4\overline{)\,5\;9} \\ -\,4\;0 \\ \hline \end{array}$ $\begin{array}{r} 1\;4 \\ 4\overline{)\,5\;9} \\ -\,4\;0 \\ \hline 1\;9 \\ -\,1\;6 \\ \hline 3 \end{array}$  59 ÷ 4 = 14 remainder 3 Hannah is not correct. It is not possible to put 59 cones into 4 equal groups.	• division • divide • sharing • grouping • repeated subtraction • quotient • remainder • ones • tens • hundreds • place value **Sentence starters** • I divide ___ tens by ___. • I divide ___ ones by ___. Year 5 • ones • tens • hundreds • partition

Images taken from Maths No Problem Calculations Policy

		 $1 \div 6 = \frac{1}{6}$ $469 \div 6 = 78\frac{1}{6}$	• remainder **Sentence starters** ___ full boxes are packed by the end of each day. There will be ___ watermelon left unpacked. The mass of the sugar flowers on 1 cake is _____. Year 6 • divide • quotient • divides • equally • groups of • remainder • tens • hundreds • repeated division **Sentence starters**

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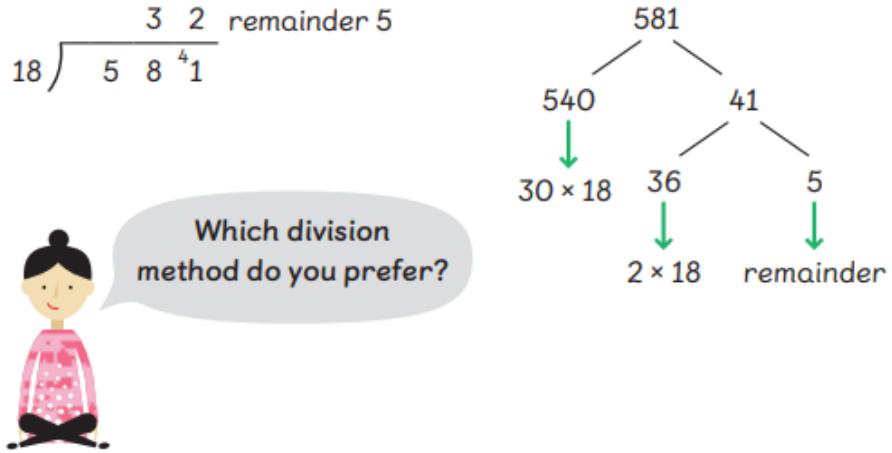
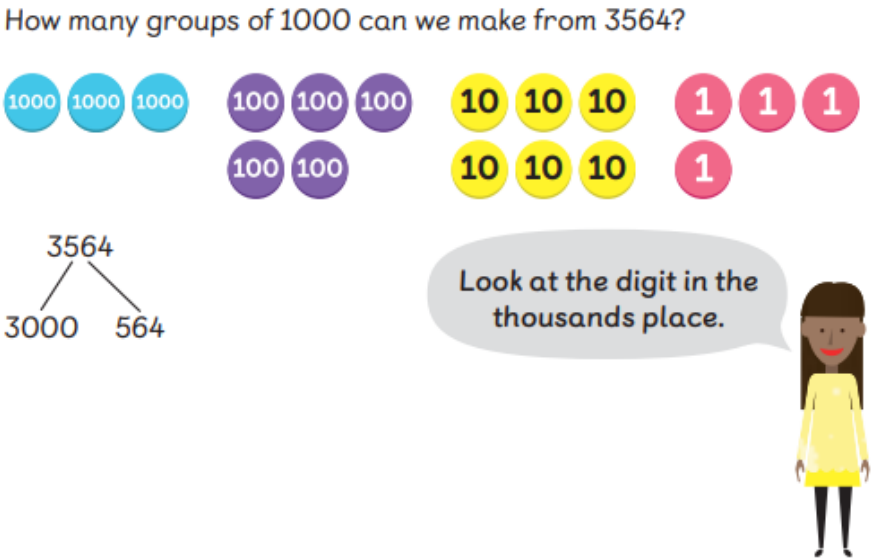
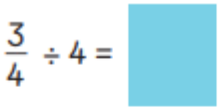
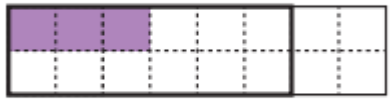
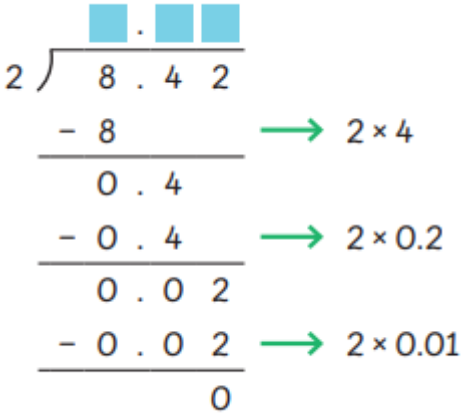
			• There are ___ eggs in a tray. • There are ___ trays.
Year 5	Dividing by 10, 100 and 1000		• ones • tens • hundreds • thousands • left over/remainder **Sentence starters** I can make ___ groups of 1000 from 3000. I can make ___ groups of 100 from 3500. I can make ___ groups of 10 from 3560.

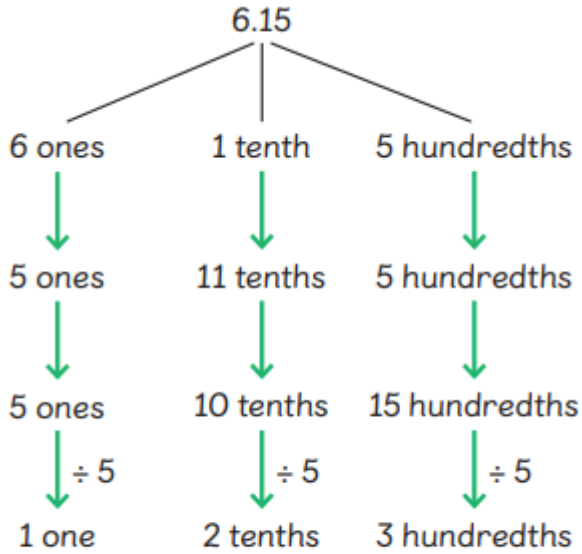
Images taken from Maths No Problem Calculations Policy

Year 6	Dividing fractions by whole numbers	$\frac{3}{4} \div 4 =$   $\frac{3}{4} \div 4 = \frac{1}{4} \times \frac{3}{4} = \frac{3}{16}$	• fraction • proper fraction • whole number • multiply • divide • simplest form • commutative • common factor • bar model **Sentence starter** • I can use ____ to find the answer.
Year 6	Dividing decimals without renaming		• decimal place • decimal point • fraction • ones • tenths • hundredths • thousandths • place value

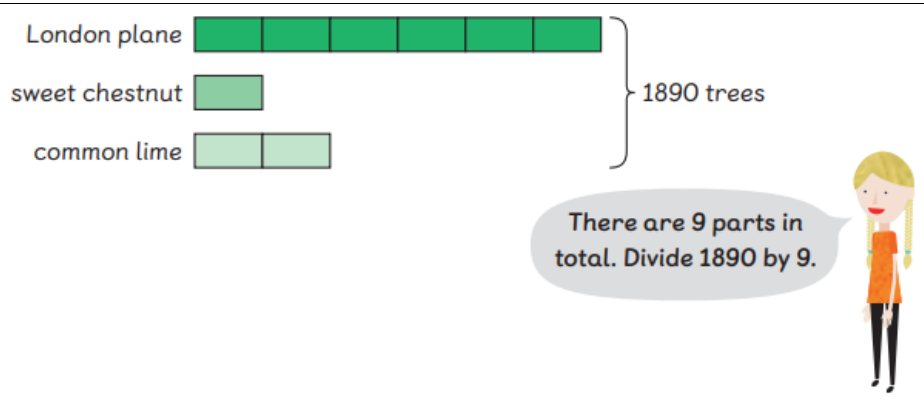
Images taken from Maths No Problem Calculations Policy

			● number bonds ● long division ● divide ● divided equally ● multiply **Sentence starters** I used long division to find the answer. I used multiplication and division facts to help me.

Images taken from Maths No Problem Calculations Policy

Year 6	Dividing decimals with renaming	 6.15 ÷ 5 = 1.23	• decimal • decimal place • decimal point • fraction • ones • tenths • hundredths • thousandths • place value • number bonds • long division • divide • divided equally • multiply • renaming • regrouping **Sentence starters** I used long division to find the answer. I used multiplication and division facts to help me.

Images taken from Maths No Problem Calculations Policy

			I rounded the answer to 2 decimal places.
Year 6	Ratio		• ratio **Sentence starters** • The ratio of the number of ____ to the number of ____ is ___ : ___. • Based on this total and this ratio, the number of ____ is ___.

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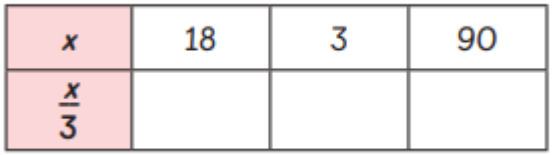
Year 6	Alegebra		● algebraic expression ● input number ● output number ● substitute **sentence starters** ● When the input number is _____, the output number is _____. ● I can find the output number for any input number by _____. ● If the input number is *n*, the output number is _____.

x	18	3	90
$\frac{x}{3}$			

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