Lower Key Stage 2 Maths Workshop 2026

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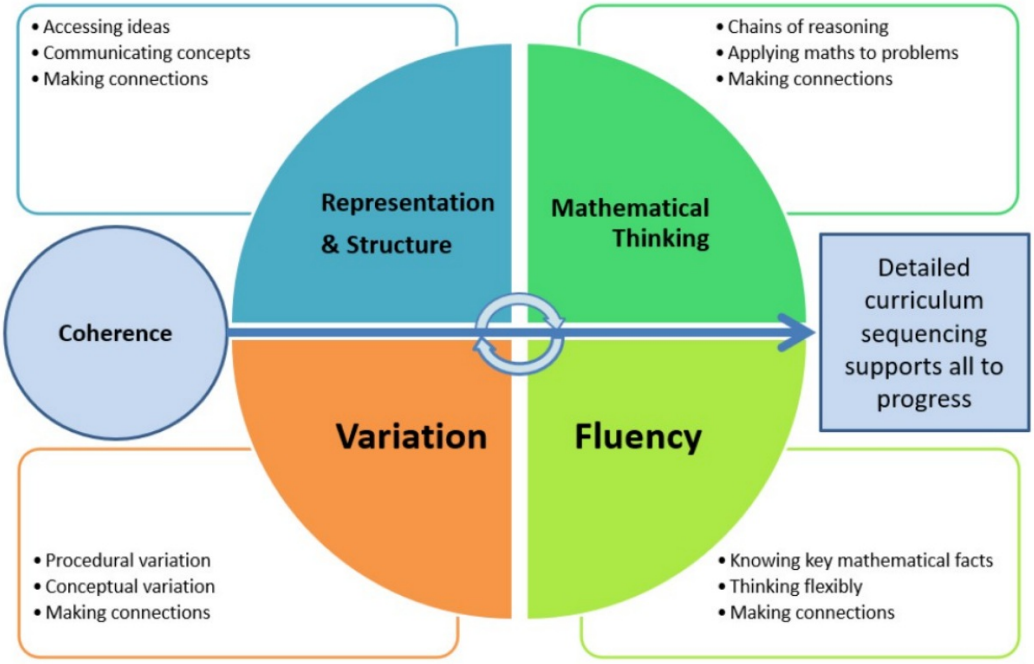
Barnes Primary School

WB

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Teaching for Mastery



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Maths in Y3

CP

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Y3 Addition and Subtraction
National Curriculum

Number - addition and subtraction

Pupils should be taught to:

- add and subtract numbers mentally, including:
  - a three-digit number and 1s
  - a three-digit number and 10s
  - a three-digit number and 100s
- add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction
- estimate the answer to a calculation and use inverse operations to check answers
- solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction

Notes and guidance (non-statutory)

Pupils practise solving varied addition and subtraction questions. For mental calculations with two-digit numbers, the answers could exceed 100.

Pupils use their understanding of place value and partitioning, and practise using columnar addition and subtraction with increasingly large numbers up to 3 digits to become fluent (see Mathematics appendix 1 (PDF, 248KB)).

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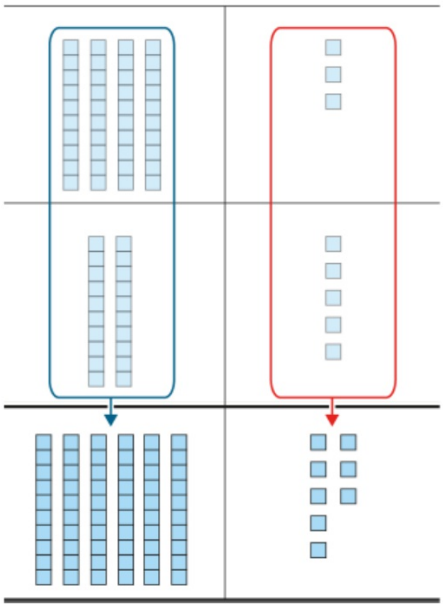
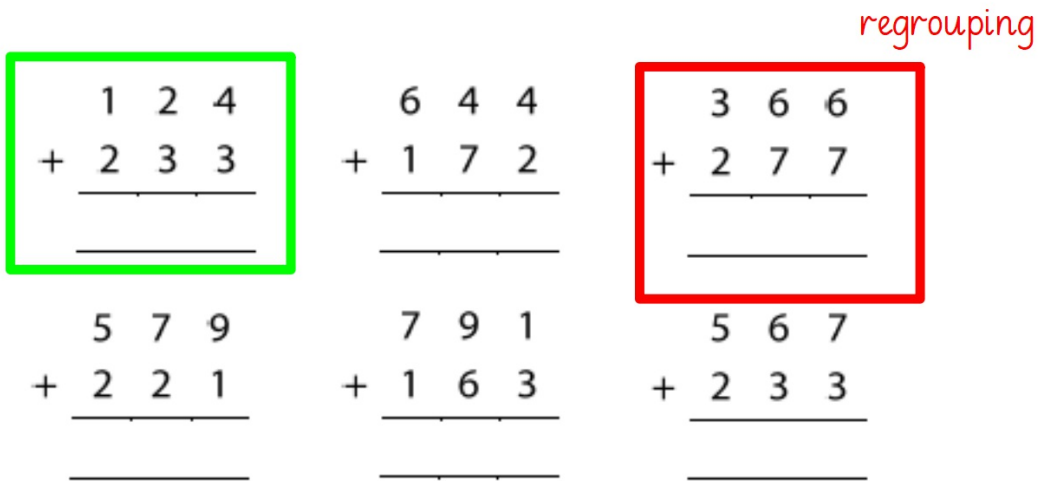
Column addition



$$\begin{array}{r} 4\ 3 \\ +\ 2\ 5 \\ \hline 6\ 8 \end{array}$$

	4	3	
+	2	5	

Column addition

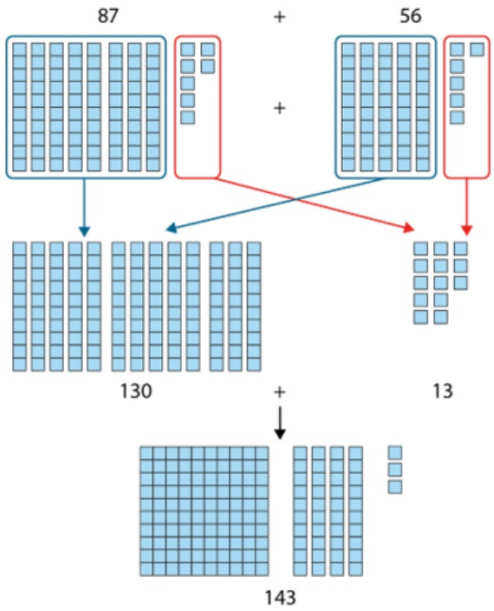


Key vocabulary

ones, tens, hundreds, part, whole, addend, sum, column, regroup

Partitioning

87 + 56 =



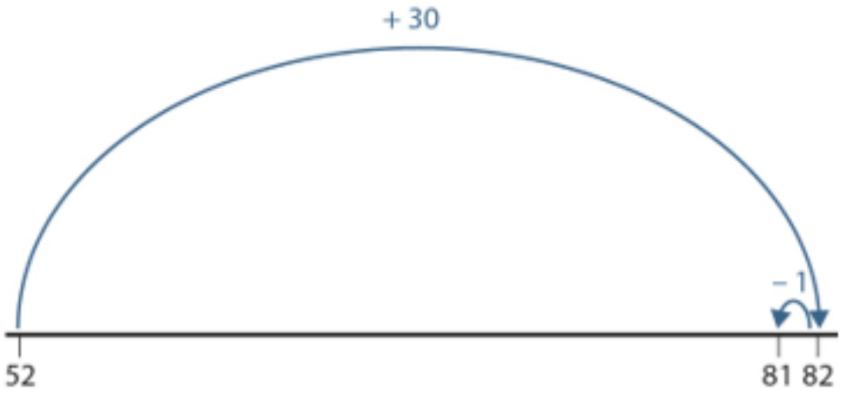
Jottings:

87 + 56 = 130 + 13 = 143

80 7 50 6

Adjusting

52 + 29 =



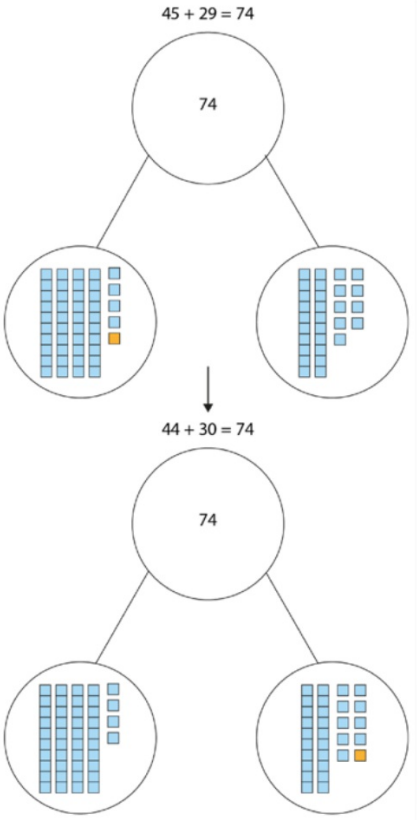
$52 + 29 = 52 + 30 - 1$

$= 82 - 1$

$= 81$

Redistributing

45 + 29 =



Subtraction in Y3

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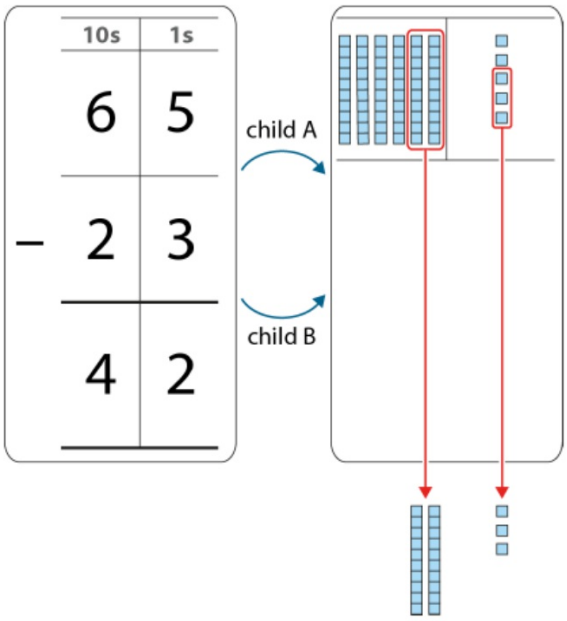
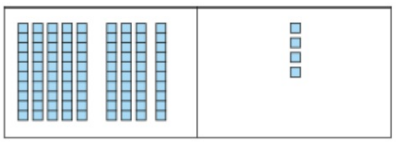
Column subtraction



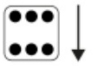
5 7	4 6 2	3 7 5
− 3 2	− 2 5 1	− 4 2
8 7	4 3 6	3 9 5
− 2 4	− 2 0 4	− 4 0

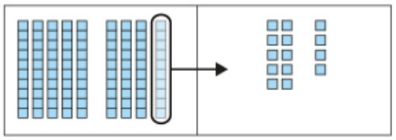
Column subtraction

94 – 6

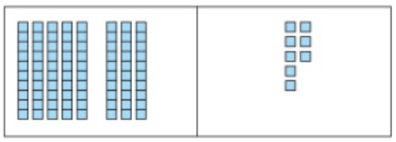


	10s	1s
	9	4
–		6





	10s	1s
	~~9~~ 8	1 4
–		6



	10s	1s
	~~9~~ 8	1 4
–		6
	8	8

5 6 3	4 8 2	8 2 4
– 2 1 3	– 1 9 7	– 3 1 9
4 0 5	3 1 6	9 0 3
– 1 2 3	– 1 0 3	– 1 2 4

Column subtraction

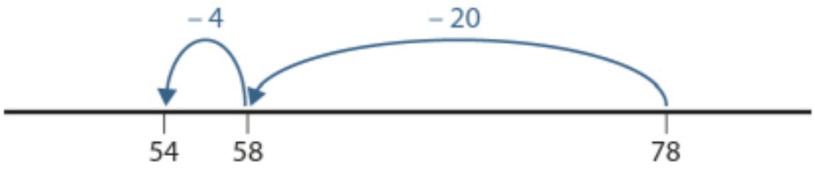
5 6 3	4 8 2	8 2 4
− 2 1 3	− 1 9 7	− 3 1 9
4 0 5	3 1 6	9 0 3
− 1 2 3	− 1 0 3	− 1 2 4

Key vocabulary

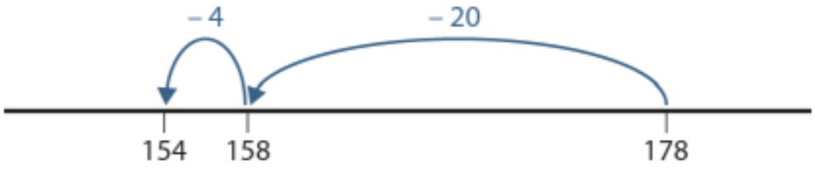
ones, tens, hundreds, part, whole, minuend, subtrahend, difference, exchange

Partitioning the subtrahend (no bridging)

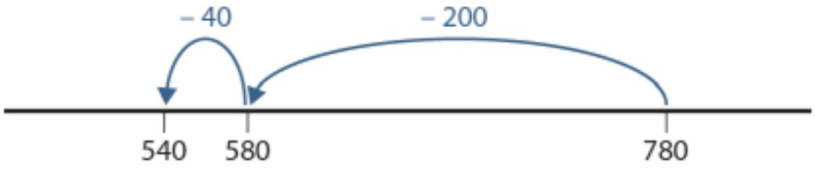
78 – 24



178 – 24

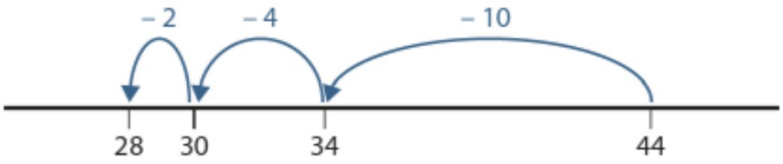


780 – 240

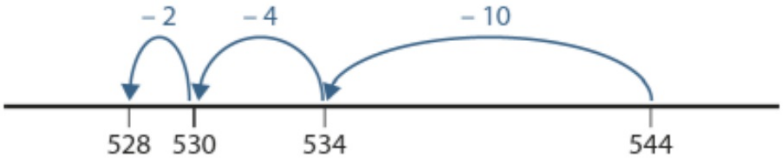


Partitioning the subtrahend (bridging)

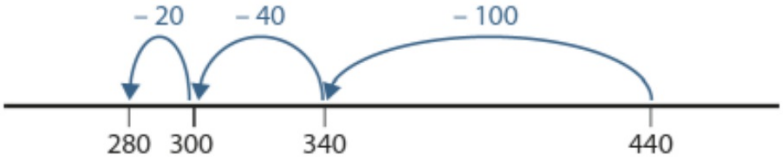
44 – 16



544 – 16



440 – 160



Y3 Multiplication and division National Curriculum

Number - multiplication and division

Pupils should be taught to:

- recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods
- solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects

Notes and guidance (non-statutory)

Pupils continue to practise their mental recall of multiplication tables when they are calculating mathematical statements in order to improve fluency. Through doubling, they connect the 2, 4 and 8 multiplication tables.

Pupils develop efficient mental methods, for example, using commutativity and associativity (for example, $4 \times 12 \times 5 = 4 \times 5 \times 12 = 20 \times 12 = 240$) and multiplication and division facts (for example, using $3 \times 2 = 6$, $6 \div 3 = 2$ and $2 = 6 \div 3$) to derive related facts ($30 \times 2 = 60$, $60 \div 3 = 20$ and $20 = 60 \div 3$).

Pupils develop reliable written methods for multiplication and division, starting with calculations of two-digit numbers by one-digit numbers and progressing to the formal written methods of short multiplication and division.

Pupils solve simple problems in contexts, deciding which of the 4 operations to use and why. These include measuring and scaling contexts, (for example 4 times as high, 8 times as long etc) and correspondence problems in which m objects are connected to n objects (for example, 3 hats and 4 coats, how many different outfits?; 12 sweets shared equally between 4 children; 4 cakes shared equally between 8 children).

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Multiplication and division in Y3

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New

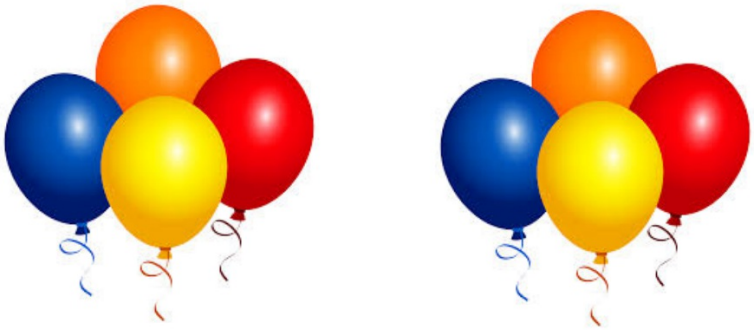
New

$$1 \times 4 = 4$$

New

New

$$2 \times 4 = 8$$

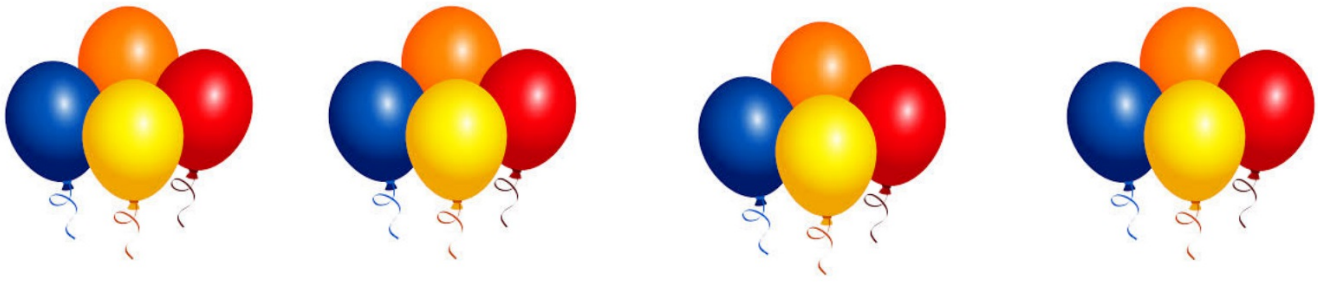


New

New

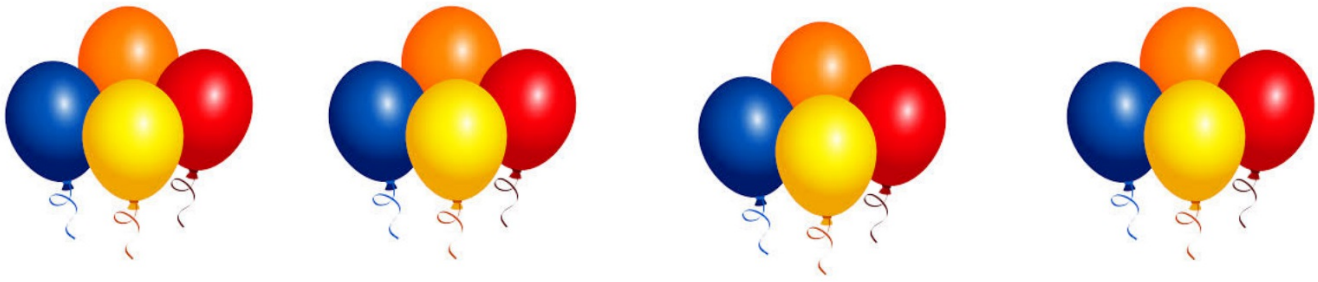
$$3 \times 4 = 12$$

New



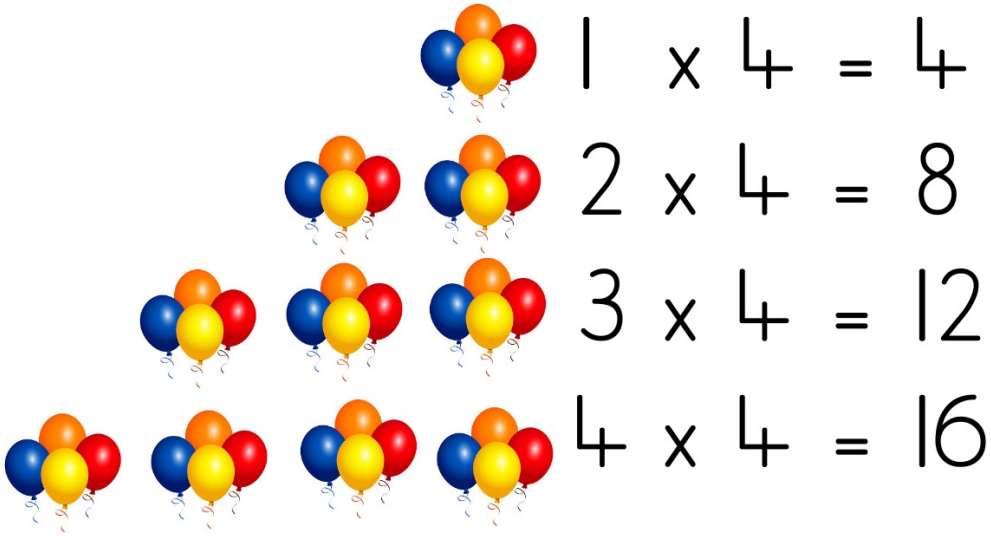
New

$$4 \times 4 = 16$$



What do you notice?
What is the same?
What is different?

New



Develop

What do you notice?
What is the same?
What is different?

	×	÷
	4 x 1 = 4	4 ÷ 4 = 1
	4 x 2 = 8	8 ÷ 4 = 2
	4 x 3 = 12	12 ÷ 4 = 3
	4 x 4 = 16	16 ÷ 4 = 4
	4 x 5 = 20	20 ÷ 4 = 5

Y2 expectations

10

5

2

3

Y3 expectations

10

5

2

4

8

3

6

9

Y3 parents

What to focus on

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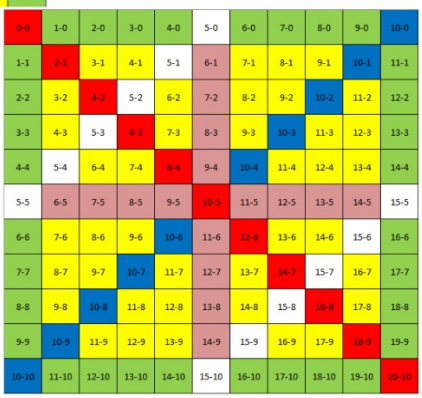


Quick recall of addition and subtraction facts

Regular times table practice

Posters

Hit the button

TTR

Chanting

Walking to school

Maths in Y4

WB

Barnes Primary School

Multiplication Check

Guidance

Multiplication tables check: information for parents

Updated 15 September 2025

Contents

Print this page

Do you have a child in year 4 at primary school?

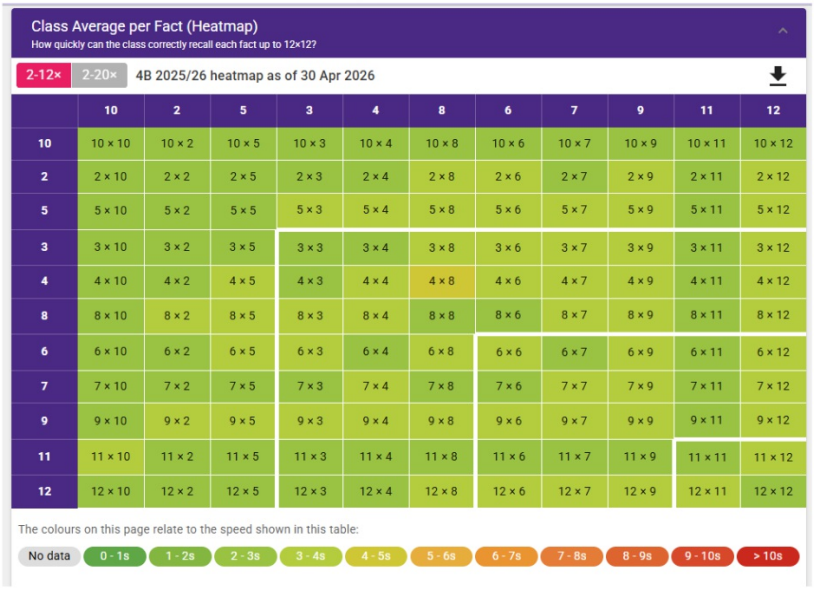
If so, your child will be participating in the multiplication tables check (MTC) in June.

The purpose of the check is to determine whether your child can fluently recall their times tables up to 12, which is essential for future success in mathematics. It will also help your child's school to identify if your child may need additional support.

What is the multiplication tables check?

It is an onscreen check consisting of 25 times table questions. Your child will be able to answer 3 practice questions before taking the actual check. They will then have 6 seconds to answer each question. On average, the check should take no longer than 5 minutes to complete.

https://www.gov.uk/government/publications/multiplication-tables-check-information-for-parents/multiplication-tables-check-information-for-parents-text-version--2



Class Average per Fact (Heatmap)

How quickly can the class correctly recall each fact up to 12×12?

2-12× | 2-20× | 4B 2025/26 heatmap as of 30 Apr 2026

	10	2	5	3	4	8	6	7	9	11	12
10	10 × 10	10 × 2	10 × 5	10 × 3	10 × 4	10 × 8	10 × 6	10 × 7	10 × 9	10 × 11	10 × 12
2	2 × 10	2 × 2	2 × 5	2 × 3	2 × 4	2 × 8	2 × 6	2 × 7	2 × 9	2 × 11	2 × 12
5	5 × 10	5 × 2	5 × 5	5 × 3	5 × 4	5 × 8	5 × 6	5 × 7	5 × 9	5 × 11	5 × 12
3	3 × 10	3 × 2	3 × 5	3 × 3	3 × 4	3 × 8	3 × 6	3 × 7	3 × 9	3 × 11	3 × 12
4	4 × 10	4 × 2	4 × 5	4 × 3	4 × 4	4 × 8	4 × 6	4 × 7	4 × 9	4 × 11	4 × 12
8	8 × 10	8 × 2	8 × 5	8 × 3	8 × 4	8 × 8	8 × 6	8 × 7	8 × 9	8 × 11	8 × 12
6	6 × 10	6 × 2	6 × 5	6 × 3	6 × 4	6 × 8	6 × 6	6 × 7	6 × 9	6 × 11	6 × 12
7	7 × 10	7 × 2	7 × 5	7 × 3	7 × 4	7 × 8	7 × 6	7 × 7	7 × 9	7 × 11	7 × 12
9	9 × 10	9 × 2	9 × 5	9 × 3	9 × 4	9 × 8	9 × 6	9 × 7	9 × 9	9 × 11	9 × 12
11	11 × 10	11 × 2	11 × 5	11 × 3	11 × 4	11 × 8	11 × 6	11 × 7	11 × 9	11 × 11	11 × 12
12	12 × 10	12 × 2	12 × 5	12 × 3	12 × 4	12 × 8	12 × 6	12 × 7	12 × 9	12 × 11	12 × 12

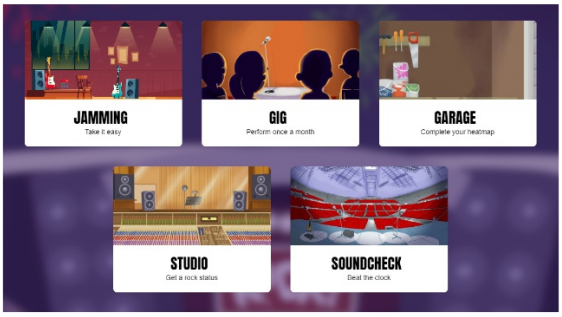
The colours on this page relate to the speed shown in this table:

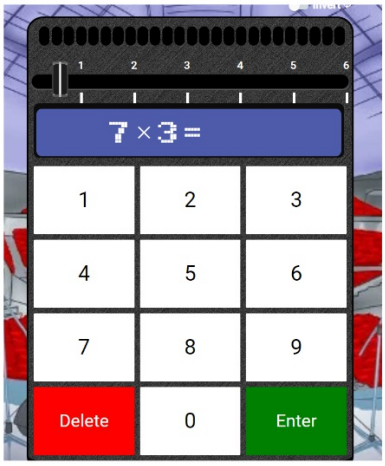
No data | 0 - 1s | 1 - 2s | 2 - 3s | 3 - 4s | 4 - 5s | 5 - 6s | 6 - 7s | 7 - 8s | 8 - 9s | 9 - 10s | > 10s

25 *6 days ago*	25 *3 months ago*	23.3	✓ MTC Ready
22 *3 days ago*	25 *4 months ago*	24.1	✓ MTC Ready
24 *6 days ago*	25 *3 months ago*	21.0	⌃⌃ Improving
21 *6 days ago*	21 *14 days ago*	18.4	⌃⌃ Improving
15 *8 days ago*	17 *9 days ago*	10.6	⌃⌃ Improving
19 *a day ago*	23 *7 days ago*	18.9	⌃⌃ Improving
22 *5 hours ago*	22 *6 days ago*	18.5	⌃ Improving
17 *5 hours ago*	25 *3 months ago*	23.1	⌃ Improving
25 *6 days ago*	25 *5 months ago*	22.2	⌃ Improving
25 *a day ago*	25 *5 months ago*	23.4	⌃ Improving
24 *8 days ago*	25 *4 months ago*	24.6	⌃ Improving
24 *3 days ago*	25 *16 days ago*	21.9	⌃ Improving
22 *9 minutes ago*	25 *2 years ago*	22.1	no significant change
25 *5 hours ago*	25 *16 days ago*	24.9	no significant change
25 *2 days ago*	25 *16 days ago*	22.6	no significant change
25 *2 days ago*	25 *2 days ago*	22.2	⌄ Dropping


GOV.UK
Multiplication Tables Check
11 × 2 =
1 2 3
4 5 6
7 8 9
0
Enter


TIMES TABLES ROCK STARS


JAMMING
Take it easy
GIG
Perform once a month
GARAGE
Complete your heatmap
STUDIO
Get a rock status
SOUNDCHECK
Beat the clock

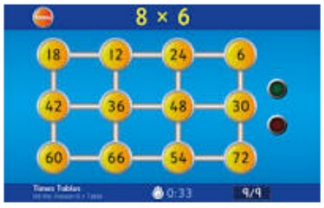

1 2 3 4 5 6
7 × 3 =
1 2 3
4 5 6
7 8 9
Delete
0
Enter


Multiplication Square
Numeracy Vocabulary
Add
Subtract
Multiply
Divide


0 7 14 21 28 35 42 49 56 63 70 77 84


Times Tables Games
TOP NOTCH


DESTINATION
MULTIPLICATION


8 × 6
18 12 24 6
42 36 48 30
60 66 54 72
0:33
9/9

Chanting times tables

Chanting in different ways

3 x 6 =

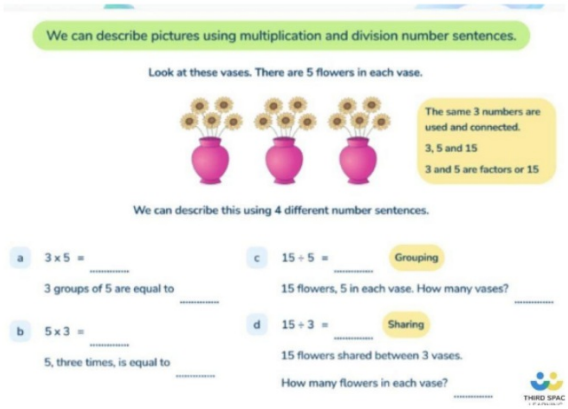
6 x 3 =

18 divided by 6 =

18 divided by 3 =

Copying out the times table facts with division

1 x 6 = 6	6 ÷ 6 = 1
2 x 6 = 12	12 ÷ 6 = 2



We can describe pictures using multiplication and division number sentences.

Look at these vases. There are 5 flowers in each vase.

The same 3 numbers are used and connected.
3, 5 and 15
3 and 5 are factors or 15

We can describe this using 4 different number sentences.

a $3 \times 5 =$ .....
3 groups of 5 are equal to .....

b $5 \times 3 =$ .....
5, three times, is equal to .....

c $15 \div 5=$ ..... Grouping
15 flowers, 5 in each vase. How many vases? .....

d $15 \div 3 =$ ..... Sharing
15 flowers shared between 3 vases.
How many flowers in each vase? .....

THIRD SPACE

3 groups of 5

5 three times

3 x table step 1 Time: Date: Score:

Standard	Mixed	Answer first (mixed)
1 x 3 = 3	4 x 3 = 12	6 = 2 x 3
2 x 3 = 6	1 x 3 =3	36 = 12 x 3
3 x 3 = 9	0 x 3 = 0	27 = 9 x 3
4 x 3 = 12	3 x 3 = 9	21 = 7 x 3
5 x 3 = 15	11 x 3 = 33	12 = 4 x 3
6 x 3 = 18	12 x 3 = 36	18 = 6 x 3
7 x 3 = 21	2 x 3 = 6	33 = 11 x 3
8 x 3 = 24	7 x 3 = 21	3 = 1 x 3
9 x 3 = 27	8 x 3 = 24	15 = 5 x 3
10 x 3 = 30	6 x 3 = 18	24 = 8 x 3
11 x 3 = 33	9 x 3 = 27	9 = 3 x 3
12 x 3 = 36	5 x 3 = 15	30 = 10 x 3

3 x table step 2 Time: Date: Score:

Mixed missing number	Division facts	Everything Everything
4 x __ = 12	6 ÷ 3 =	__ x 3 = 30
__ x 3 = 3	24 ÷ 3 =	7 x 3 =
__ x 3 = 30	21 ÷ 3 =	12 x __ = 36
3 x __ = 9	33 ÷ 3 =	33 ÷ __ = 11
11 x 3 = __	12 ÷ 3 =	__ x 3 = 6
12 x __ = 36	30 ÷ 3 =	__ ÷ 3 = 5
__ x 3 = 6	18 ÷ 3 =	36 ÷ 3 =
7 x 3 = __	36 ÷ 3 =	9 x 3 =
__ x 3 = 24	15 ÷ 3 =	__ = 6 x 3
6 x 3 = __	3 ÷ 3 =	__ x 3 = 24
9 x __ = 27	9 ÷ 3 =	33 ÷ __ = 3
__ x 3 = 15	27 ÷ 3 =	__ x 3 = 27

Year 4 expectations

Autumn 1

3 step 1

3 step 2

6 step 1

6 step 2

Autumn 2

9 step 1

9 step 2

3, 6, 9 mixed

4 and 8 step 1

4 and 8 step 2

7 step 1

7 step 2

Spring 1

11 step 1

11 step 2

12 step 1

12 step 2

Spring 2

Mixed 5, 10, 11

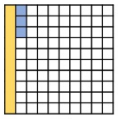
Mixed 2, 4, 8, 12

Mixed 3, 6, 9, 7

Mixed all - challenges

Mentioned in the weekly home learning letters (Y3 and Y4).

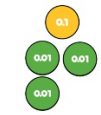
Decimals

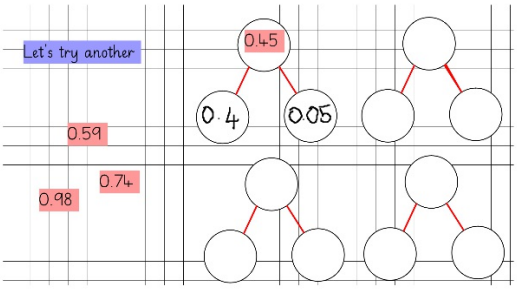


$\frac{13}{100}$

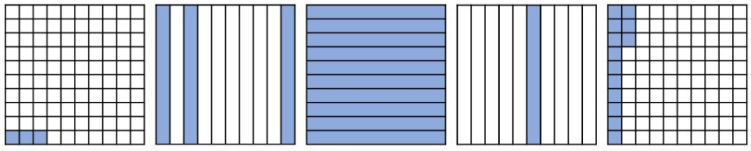
$0.1 + 0.03$

0.13





Match the representations to the numbers.



$\frac{10}{100}$ $\frac{3}{10}$ 1 $\frac{3}{100}$ $\frac{13}{100}$

Alex says the number on the place value chart is 3.4

Ones	Tenths	Hundredths
●●●		●●●●

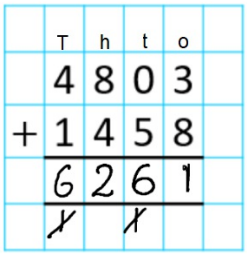
Do you agree with Alex? _____

Explain your answer.

Addition and Subtraction

Formal Strategies

When starting an addition or subtraction use the language 'begin from the lowest place value column' (rather than 'ones column').



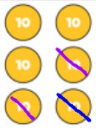
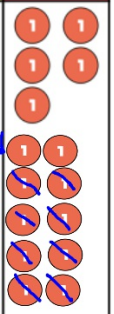
This is to prepare children for adding and subtracting decimals where we are not 'starting with the ones'.

Th	H	T	O
1.000 1.000 1.000 1.000	100 100 100 100 100 100 100 100		1 1 1
1.000	100 100 100 100	10 10 10 10 10	1 1 1 1 1 1 1 1

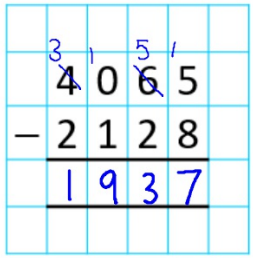
	4	8	0	3	
+	1	4	5	8	
	6	2	6	1	
	✗		✗		

regrouping

4,065 − 2,128 =

Th	H	T	O
			
1	9	3	7

exchanging



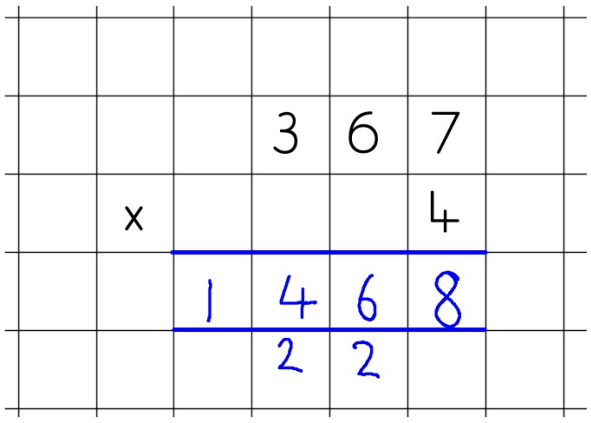
→ 15 − 8

5 3

There are not enough _____ , so I need to exchange 1 _____ for 10 _____

Multiplication and Division

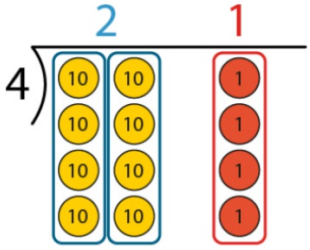
Formal Strategies


3 6 7
x 4
1 4 6 8
2 2

'Eighty-four sticks are shared equally between four children. How many sticks does each child get?

10s	1s
2	1

$$4 \overline{)\ 8\ 4}$$



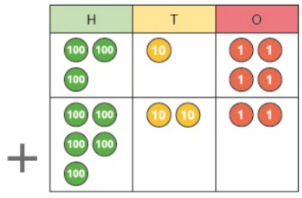
Reasoning

There is challenge in everything we do!

I can add up to two 4 digit numbers

1. Calculate 314 + 522

Use the place value chart to help you.



314 + 522 = ☐

2. Complete the calculations.

a) 4,122 + 2,605 = ☐

b) 3,709 + 4,160 = ☐

c) 247 + 1,032 = ☐

d) 3,007 + 560 = ☐

3. The distance from Scotland to France is 1,550 km.

The distance from France to Spain is 1,002 km.

Teddy is travelling from Scotland to France and then France to Spain.

How far will he travel in total?

4. a) Complete the calculations.

2,415 + 5,142 = ☐

3,051 + 1,503 = ☐

b) What do you notice about the numbers in each question?

How does this affect the answers?

5. The mass of a box of fruit is 1,241 g.

Another three pieces of fruit are placed in the box.

Each piece of fruit has a mass of 102 g.

What is the mass of the box of fruit now?

6. Whitney and Jack are playing a game.

Whitney has 1,323 points.

Jack has 230 points more than Whitney.

How many points do they have altogether?

7. Fill in the missing digits.

a)

	Th	H	T	O
	3		2	
+		4		6
	8	7	9	6

b)

	Th	H	T	O
			0	
+	5	0		7
	8	9	0	8

Further challenges

Further Challenge

1. Dani and Aisha are raising money for charity.

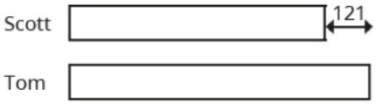
Dani raises £2,304 and Aisha raises £1,695

How much money have they raised altogether?

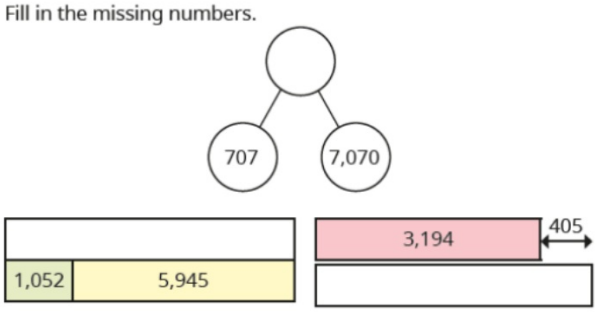
Scott and Tom are also raising money for charity.

So far, Scott has raised £1,423 and Tom has raised £121 more than Scott.

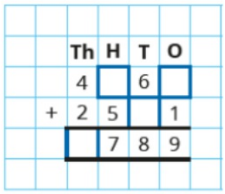
How much have Scott and Tom raised altogether?



2. Fill in the missing numbers.



3. Work out the missing numbers.



	Th	H	T	O
	4		6	
+	2	5		1
		7	8	9

Multi-step Problems

5. The mass of a box of fruit is 1,241 g.
Another three pieces of fruit are placed in the box.
Each piece of fruit has a mass of 102 g.
What is the mass of the box of fruit now?

Children often rush and don't do the first/second step.

× 1,241g + 102g ← ×

Step 1 ✓ 102g x 3 =

Step 2 ✓ 1,241g + 306g

g ← units!

6. Whitney and Jack are playing a game.
Whitney has 1,323 points.
Jack has 230 points more than Whitney.
How many points do they have altogether?

Step 1 1,323 + 230 = 1,553

Step 2 1,553 + 1,323 = 2,876

General tips when supporting at home

- Focus on the process of solving problems, not just the answer - encourage your child to explain their thinking
- Be positive and encourage a growth mindset - praise effort not outcome
- Use everyday situations to teach maths concepts - where is the maths in everyday life - units - miles, KM, m, cm, kg, l
- Encourage your child to ask questions to guide thinking and ask them questions - is this the most efficient strategy?
- Find fun interactive maths games - apps or boardgames - make maths as fun as possible!
- Go through home learning with the children including the answers.
- Find efficient strategies that work for them.

Times tables

- Quiz your children regularly and at random on their times tables. This could be done whilst cooking tea together, during car journeys or on the walk to school.
- Show your children some fun 'tricks' for remembering the trickier times tables, like nines or the sevens.
- Use times table wall charts at home.
- Create flashcards with your child for each times table and play games like snap or matching them up in specific time. This works well as a competition between siblings, parents or even other family members!
- Challenge your children to 'beat Siri' in their times tables!
- Support school in any times table practice we send home.

Thank you!