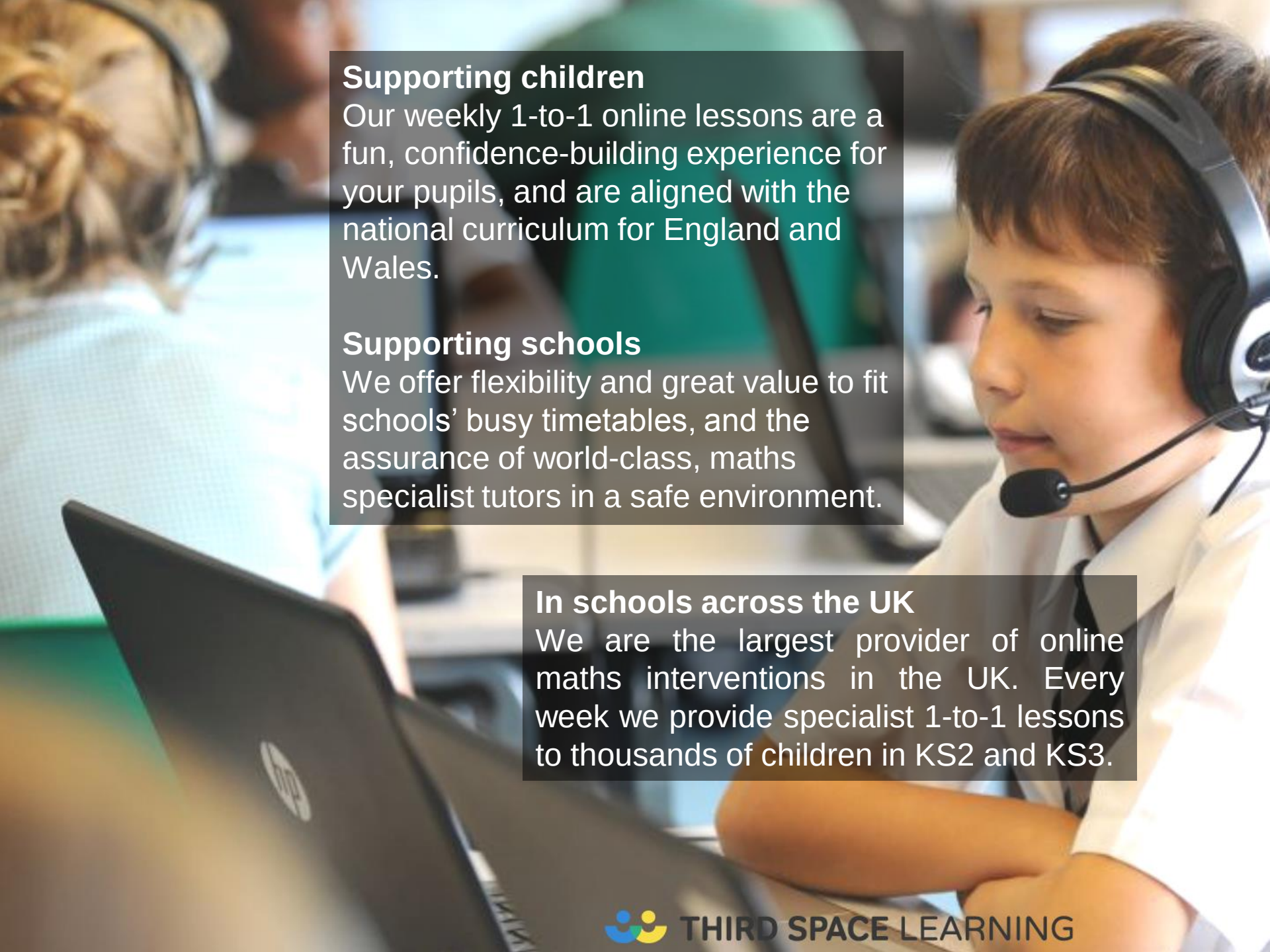


Supporting children
Our weekly 1-to-1 online lessons are a fun, confidence-building experience for your pupils, and are aligned with the national curriculum for England and Wales.

Supporting schools
We offer flexibility and great value to fit schools' busy timetables, and the assurance of world-class, maths specialist tutors in a safe environment.

In schools across the UK
We are the largest provider of online maths interventions in the UK. Every week we provide specialist 1-to-1 lessons to thousands of children in KS2 and KS3.

THIRD SPACE LEARNING

To be able to add two 4-digit numbers

STARTER:

How many different 4-digit numbers can you make out of these digits?

What is the largest number? What is the smallest number?

Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

Can you think of a way to work methodically, so that you make sure you think of all possible answers?

To be able to add two 4-digit numbers

STARTER:

How many different 4-digit numbers can you make out of these digits?

What is the largest number? What is the smallest number?

There are 18 possible answers:

1,046	1,064	1,406	1,460	1,604	1,640
4,016	4,061	4,106	4,160	4,601	4,610
6,014	6,041	6,104	6,140	6,401	6,410

The largest number is 6,410 and the smallest number is 1,046.

Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

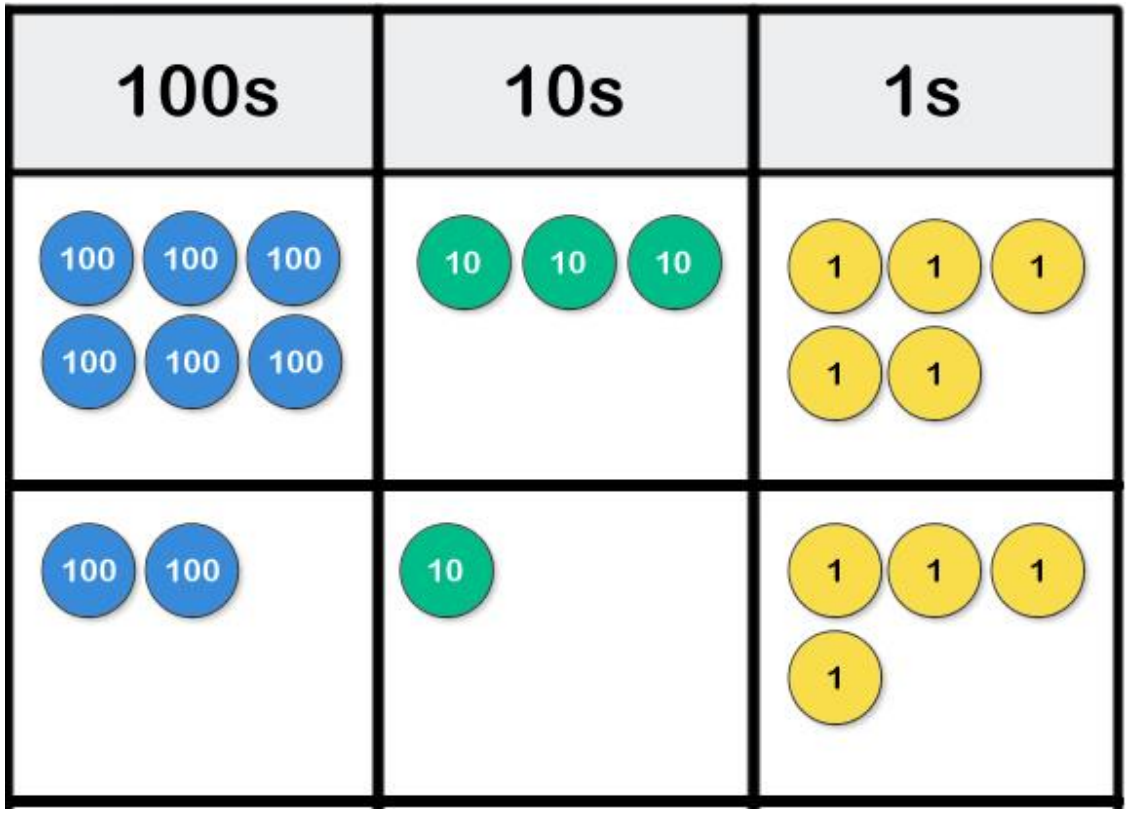
Extension:
Georgia says, "I would have thought that the smallest number would be the largest number backwards."

Explain why this is not correct for this set of digits. Could it be correct for a different set of digits? Why?

To be able to add two 4-digit numbers

TALKING TIME:

Use your knowledge of adding 3-digit numbers to find the total of 635 and 214.



Success Criteria:

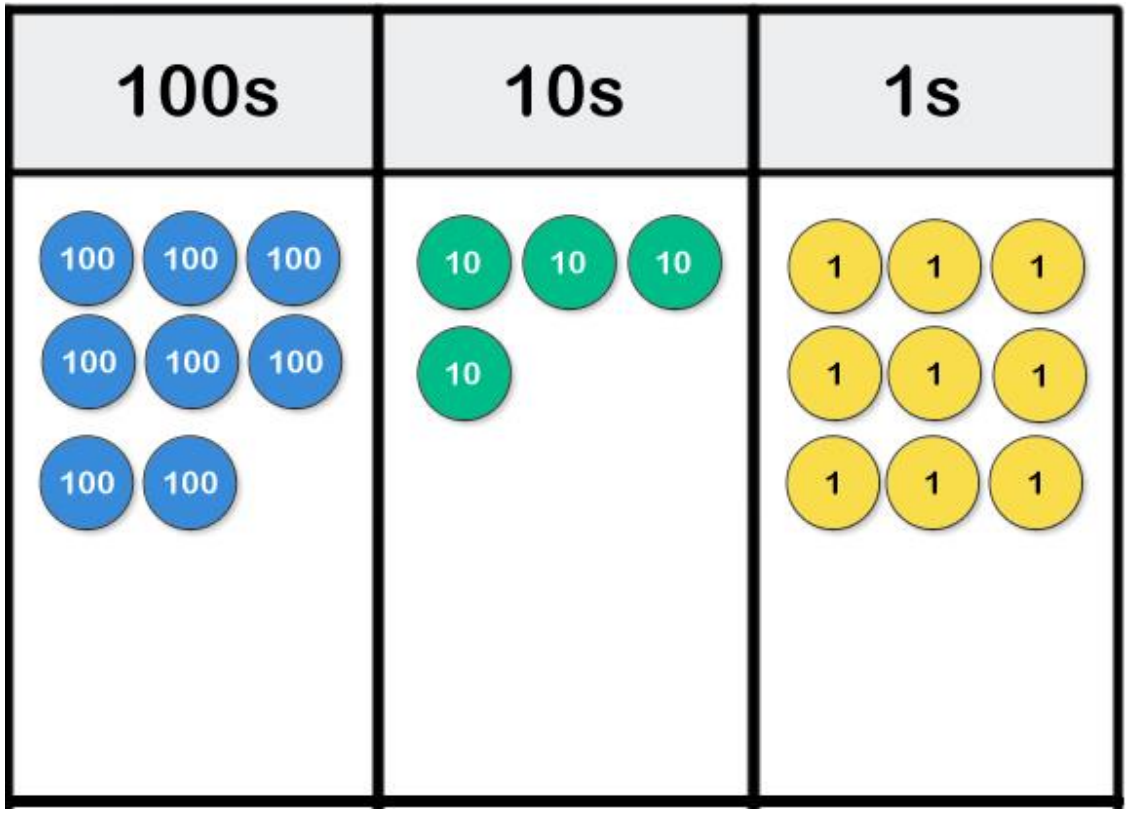
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

TALKING TIME:

Use your knowledge of adding 3-digit numbers to find the total of 635 and 214.



Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

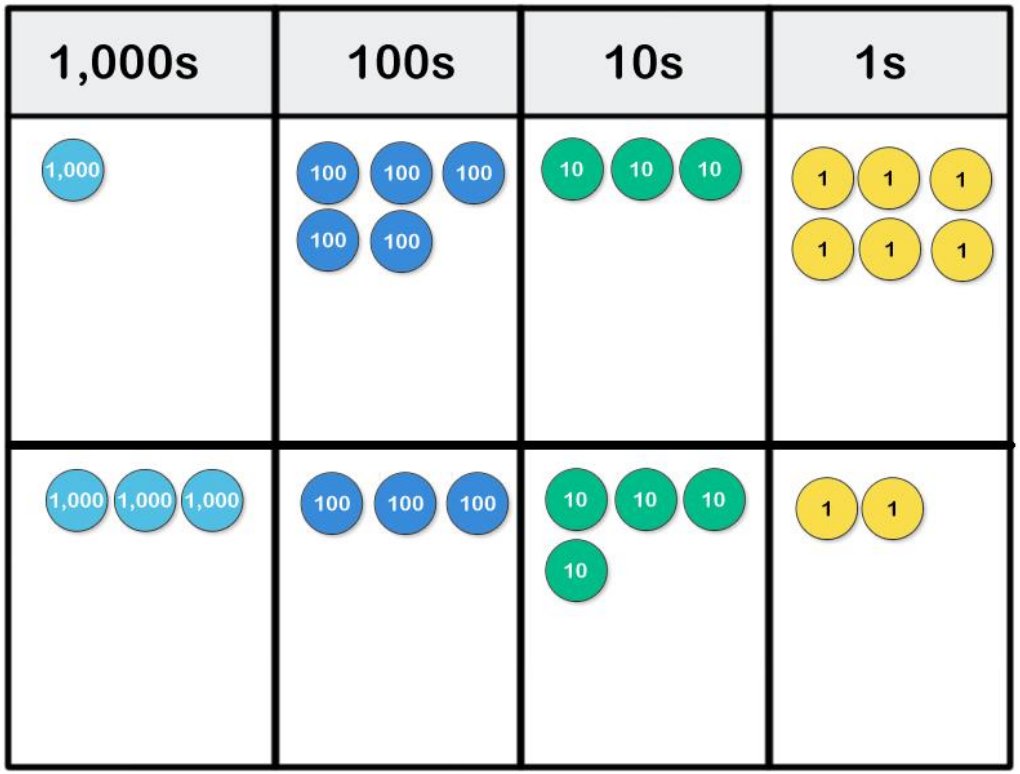
Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

635 + 214 = 849

To be able to add two 4-digit numbers

TALKING TIME:

Use place-value counters to combine 1,536 and 3,342.



Success Criteria:

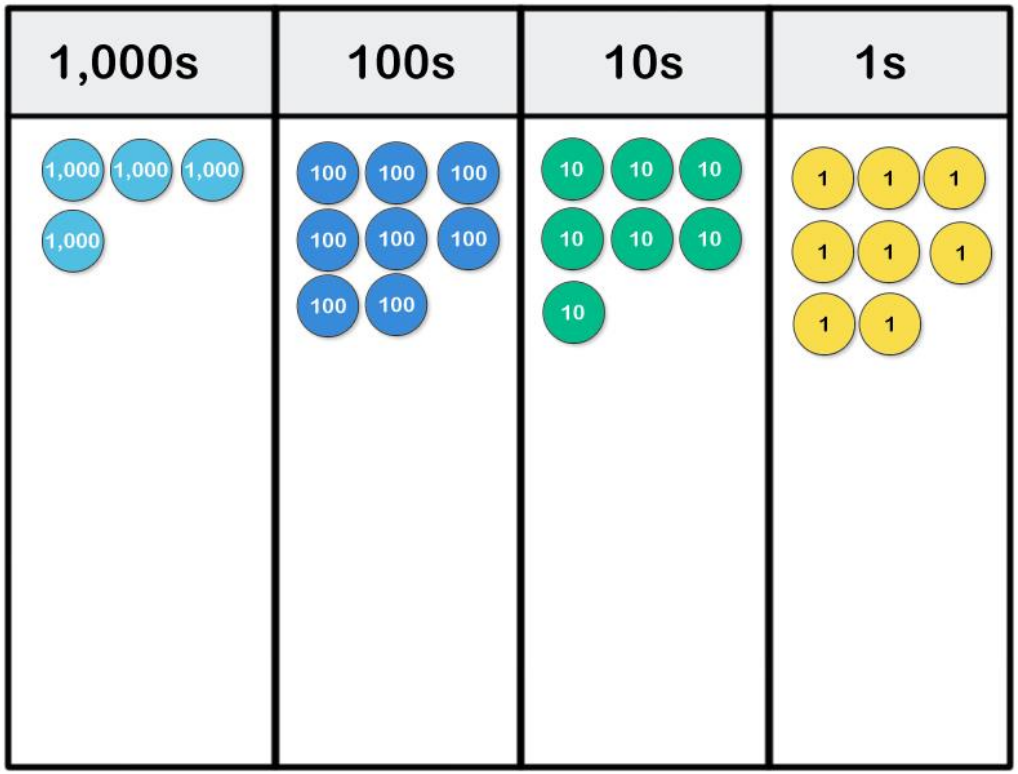
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

TALKING TIME:

Use place-value counters to combine 1,536 and 3,342.



Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

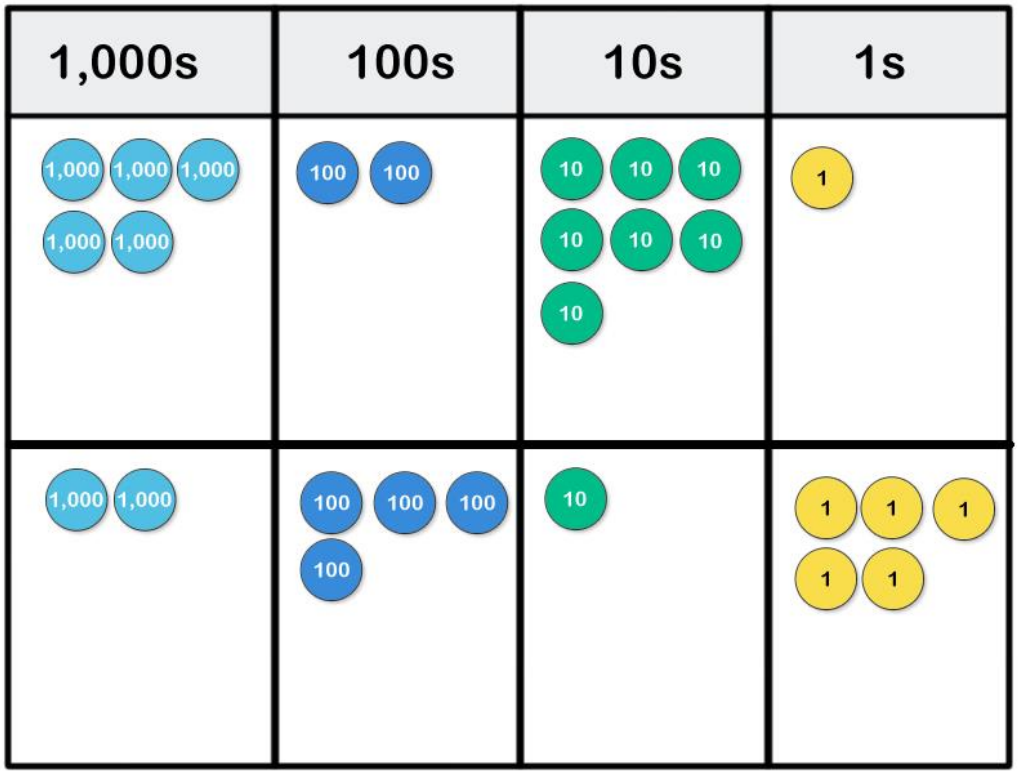
Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

1,536 + 3,342 = 4,878

To be able to add two 4-digit numbers

TALKING TIME:

What is five thousand two hundred and seventy-one plus two thousand four hundred and fifteen?



Success Criteria:

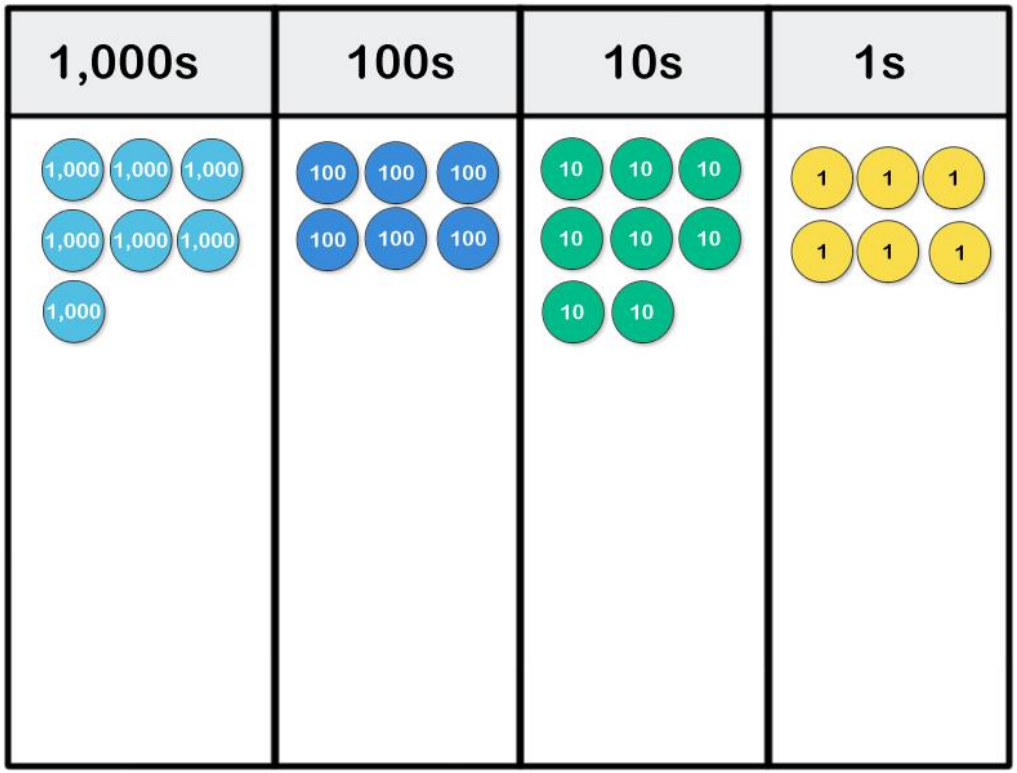
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

TALKING TIME:

What is five thousand two hundred and seventy-one plus two thousand four hundred and fifteen?



Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

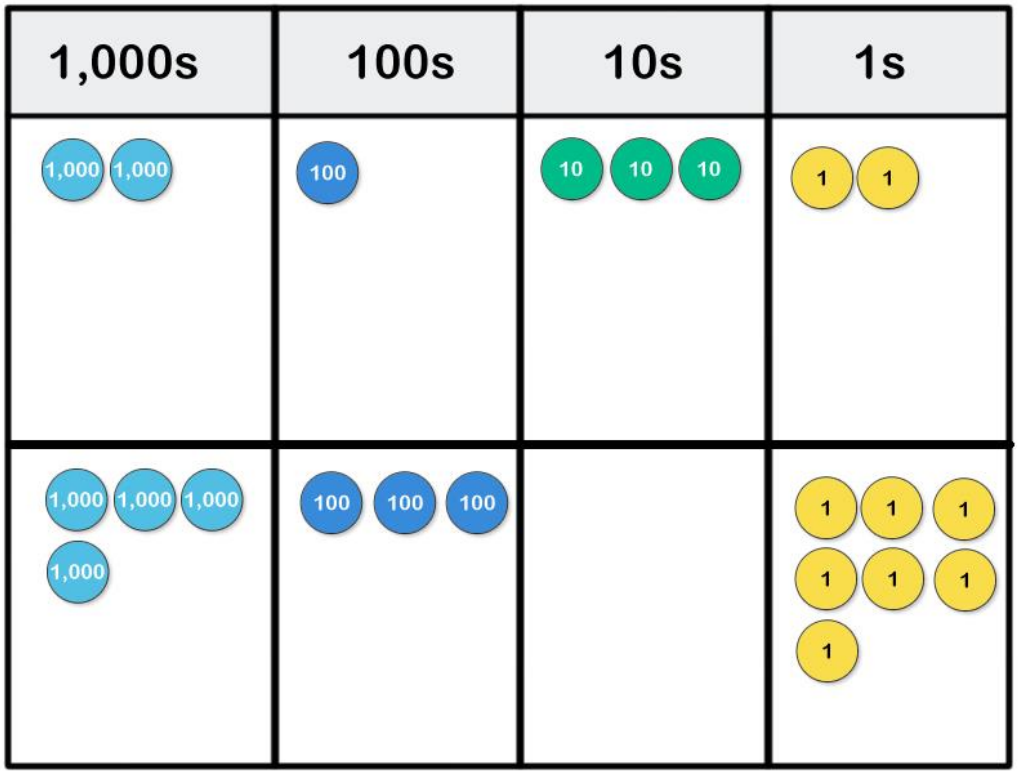
Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

5,271 + 2,415 = 7,686

To be able to add two 4-digit numbers

ACTIVITY 1:

What is the sum of 2,132 and 4,307?
Use place-value counters to find the answer.



Success Criteria:

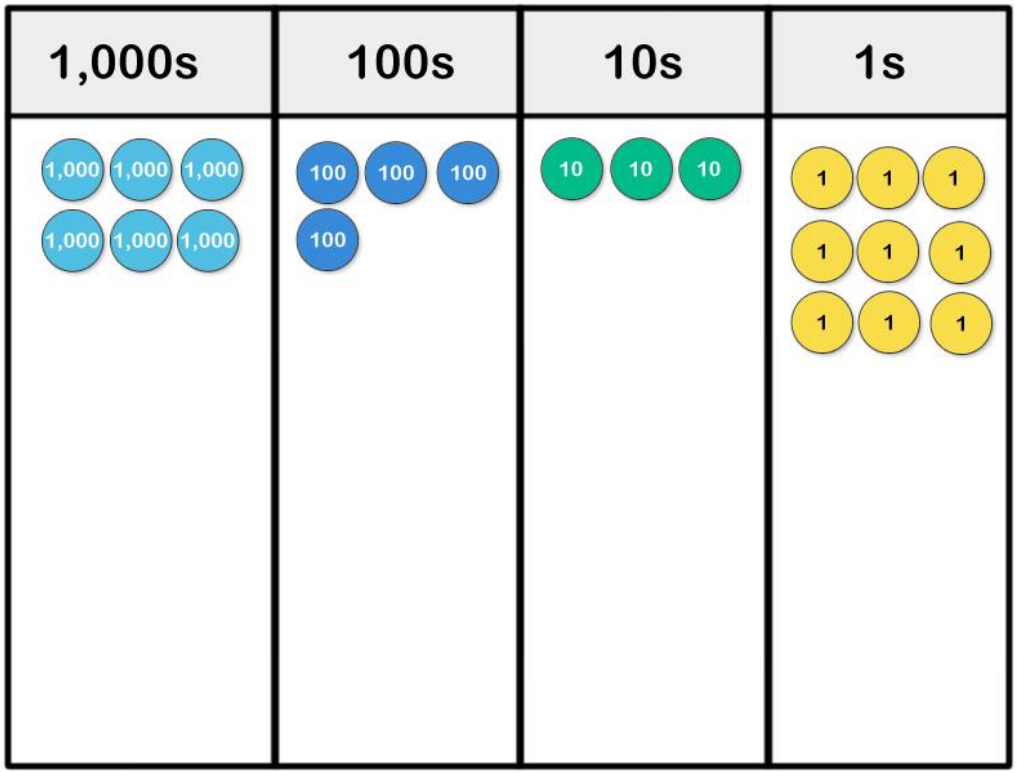
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

ACTIVITY 1:

What is the sum of 2,132 and 4,307?
Use place-value counters to find the answer.



Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

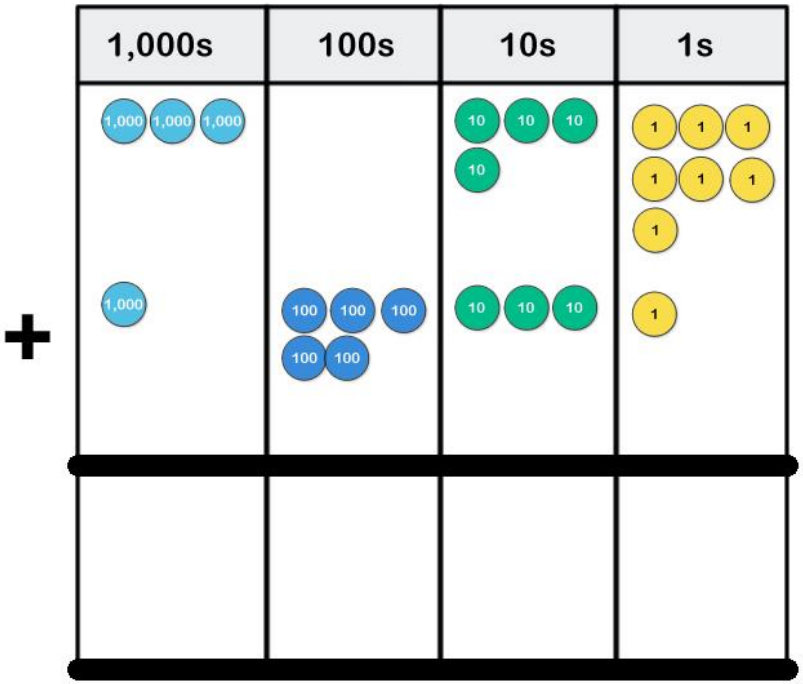
Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

2,132 + 4,307 = 6,439

To be able to add two 4-digit numbers

TALKING TIME:

Add 3,047 and 1,531 using the column method.
Use a place-value grid and counters to model each step.



	3	0	4	7	
+	1	5	3	1	

Success Criteria:

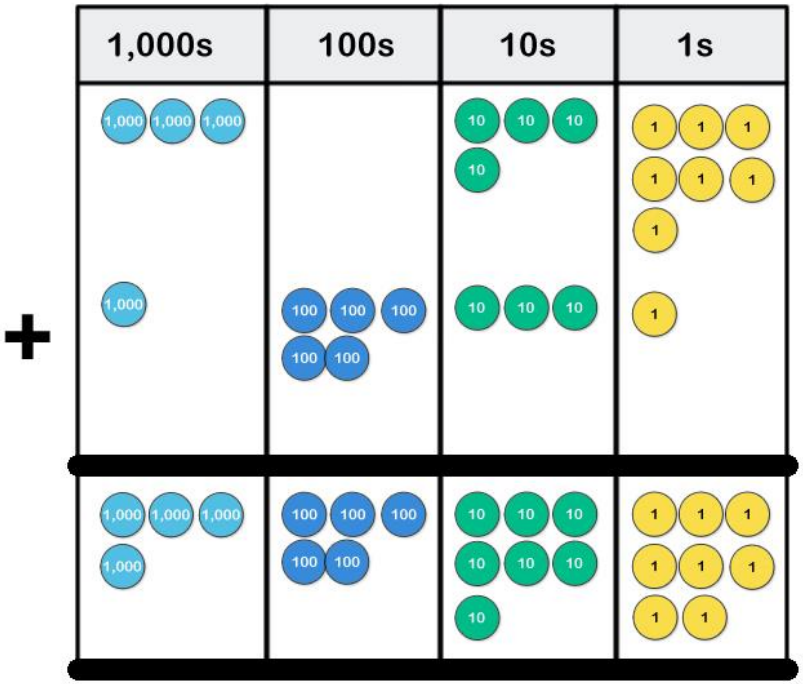
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

TALKING TIME:

Add 3,047 and 1,531 using the column method.
Use a place-value grid and counters to model each step.



	3	0	4	7	
+	1	5	3	1	
	4	5	7	8	

Success Criteria:

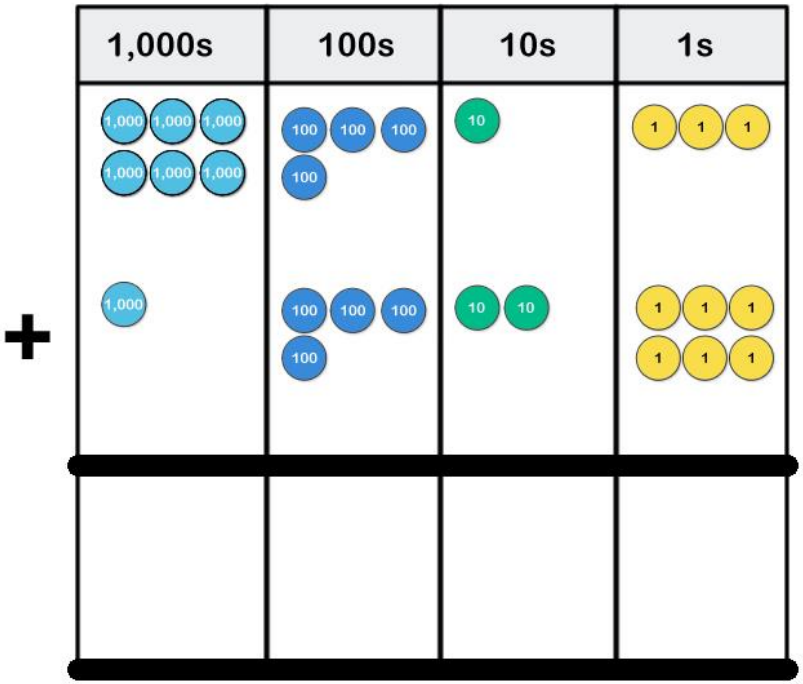
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

TALKING TIME:

Add 6,413 and 1,426 using the column method.
Use a place-value grid and counters to model each step.



	6	4	1	3
+	1	4	2	6

Success Criteria:

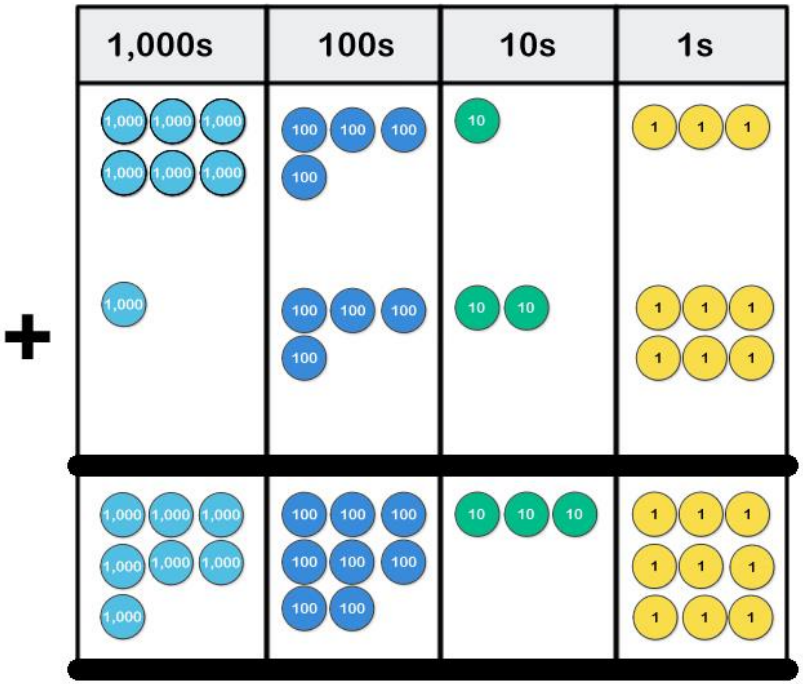
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

TALKING TIME:

Add 6,413 and 1,426 using the column method.
Use a place-value grid and counters to model each step.



	6	4	1	3
+	1	4	2	6
	7	8	3	9

Success Criteria:

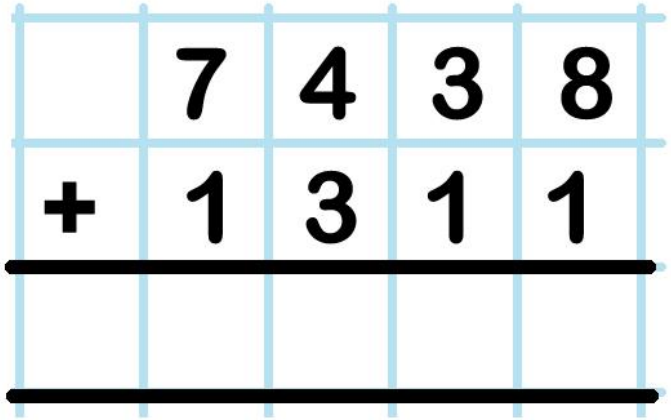
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

ACTIVITY 2:

Mr Aziz has £7,438 in one bank account and £1,311 in another. How much money does he have in total?



Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

ACTIVITY 2:

Mr Aziz has £7,438 in one bank account and £1,311 in another. How much money does he have in total?

	7	4	3	8
+	1	3	1	1
	8	7	4	9

He has £8,749 in total.

Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

ACTIVITY 3:

Use the numbers 5,416, 2,173 and 1,523 to make as many different totals as you can.
You must only add two numbers at a time.

How many different totals do you think you will be able to make from these three numbers?

Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

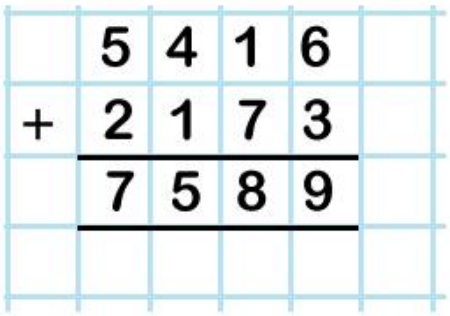
ACTIVITY 3:

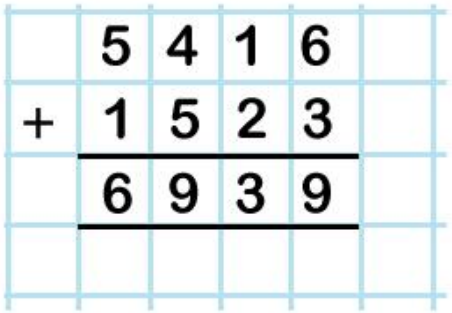
Use the numbers 5,416, 2,173 and 1,523 to make as many different totals as you can.
You must only add two numbers at a time.

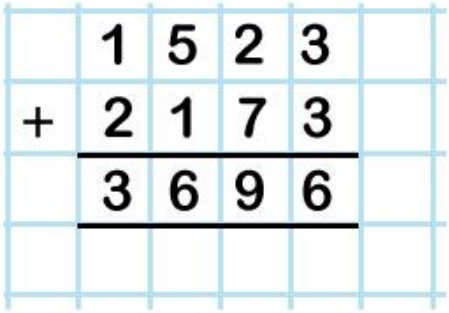
Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.



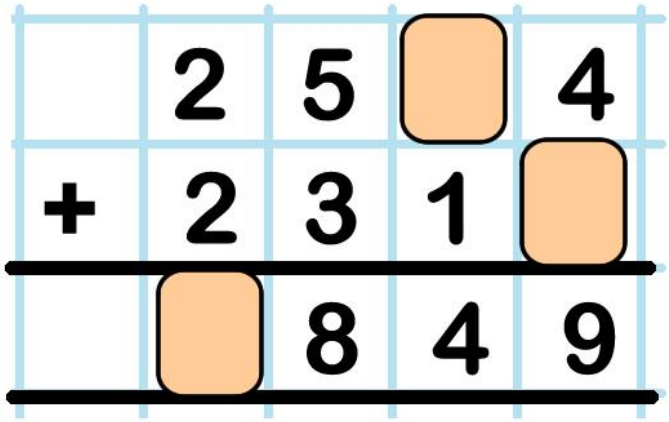




To be able to add two 4-digit numbers

ACTIVITY 4:

Use your knowledge of adding 4-digit numbers to work out the missing digits.



Success Criteria:

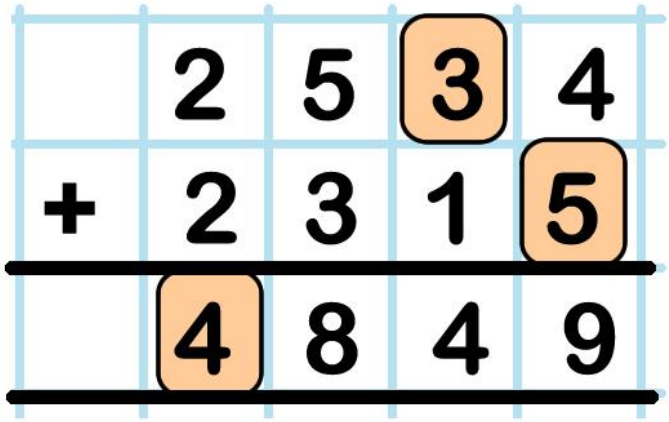
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

ACTIVITY 4:

Use your knowledge of adding 4-digit numbers to work out the missing digits.



Success Criteria:

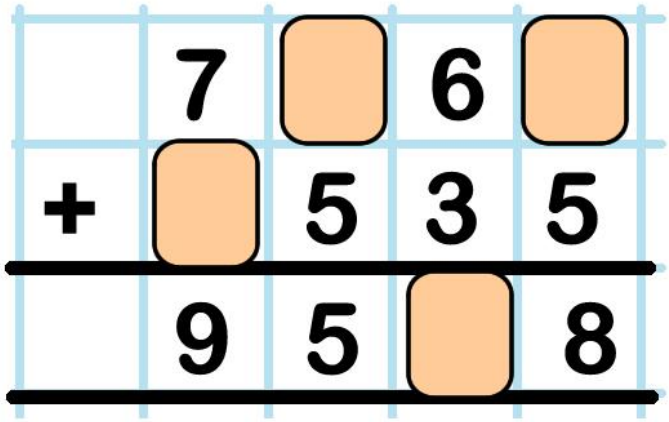
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

ACTIVITY 5:

Use your knowledge of adding 4-digit numbers to work out the missing digits.



Success Criteria:

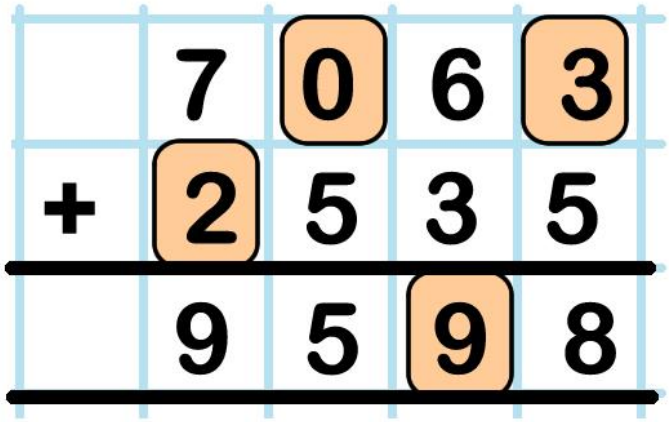
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

ACTIVITY 5:

Use your knowledge of adding 4-digit numbers to work out the missing digits.



Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

ACTIVITY 6:

Only solve the addition problem.

a) Number X is 3,214 more than Number Y.
Number Y is 5,175.
What is Number X?

b) The price of a hatchback car is £2,412 less than the price of an estate car.
The price of the estate car is £7153.
How much does the hatchback cost?

Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

ACTIVITY 6:

Only solve the addition problem.

a) Number X is 3,214 more than Number Y.
Number Y is 5,175.
What is Number X?

$$\begin{array}{r} 3\,2\,1\,4 \\ +\ 5\,1\,7\,5 \\ \hline 8\,3\,8\,9 \end{array}$$

b) The price of a hatchback car is £2,412 less than the price of an estate car.
The price of the estate car is £7153.
How much does the hatchback cost?

Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

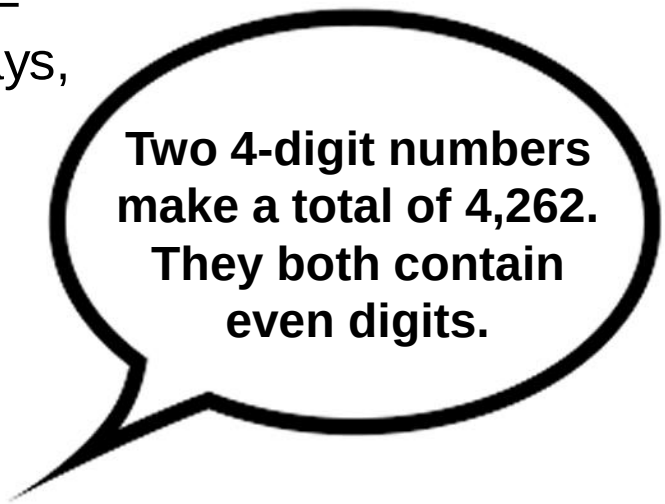
Extension:
Invent a similar mystery number problem for a friend to solve.

You should use the phrase “less than” in your problem and it needs to be solved using addition. Think carefully!

To be able to add two 4-digit numbers

ACTIVITY 7:

Clara says,



What could the two numbers be?

What are the even digits that these numbers could contain?
What can you say for definite about the numbers?

Success Criteria:

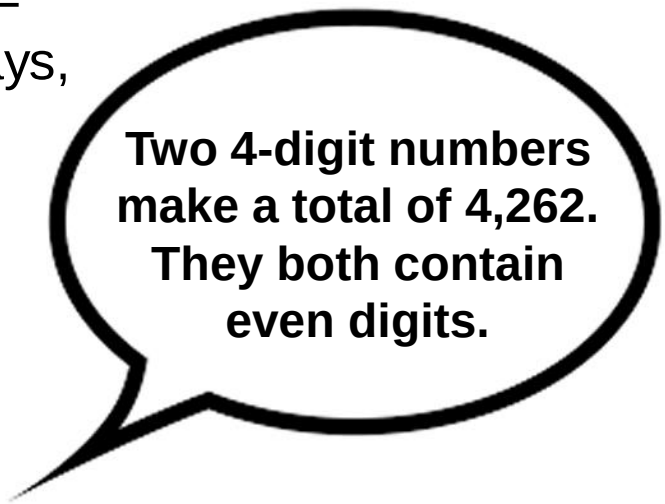
Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

ACTIVITY 7:

Clara says,



What could the two numbers be?

Some possible answers are:

2,000 + 2,262
2,002 + 2,260
2,020 + 2,242
2,200 + 2,062
2,040 + 2,222
2,060 + 2,202

There are other possible answers. Can you think of any?

Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

Extension:
What if the two numbers both contain odd digits instead?

Does this make the problem easier, more difficult or the same?

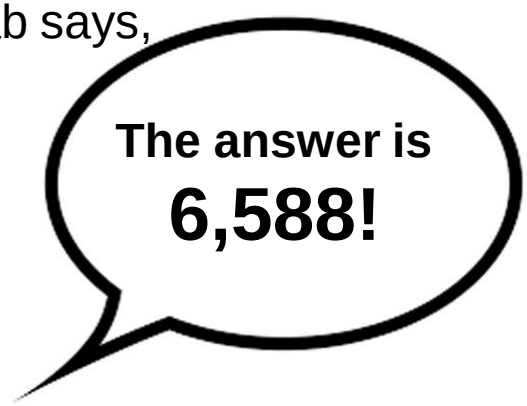
Explain your answer and find six possible answers.

To be able to add two 4-digit numbers

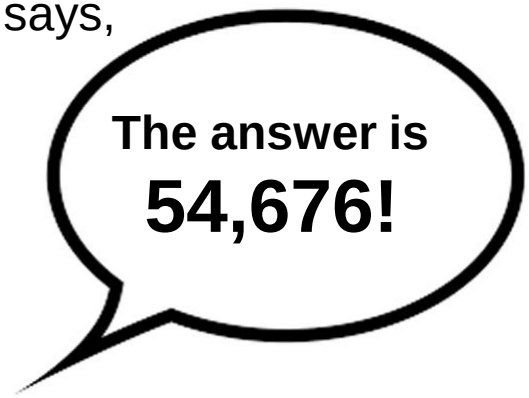
ACTIVITY 8:

Zainab and Ben are calculating the answer to 5,342 + 1,256.

Zainab says,



Ben says,



Both children have made a mistake!

Work out the correct answer and explain the mistakes they have made.

Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

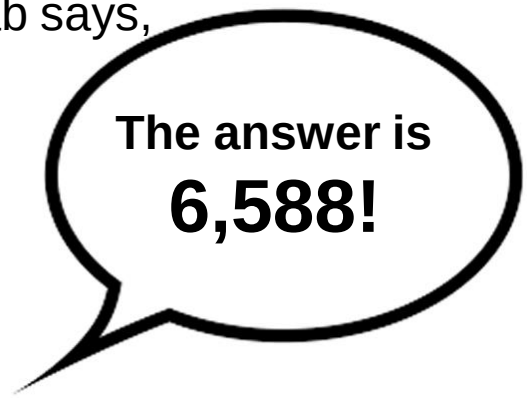
Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

To be able to add two 4-digit numbers

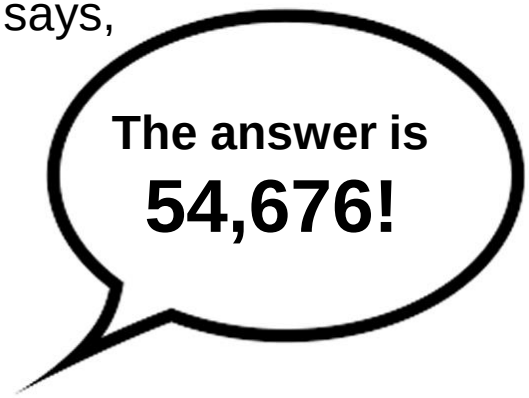
ACTIVITY 8:

Zainab and Ben are calculating the answer to 5,342 + 1,256.

Zainab says,



Ben says,



Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

Both children have made a mistake!
Work out the correct answer and explain the mistakes they have made.

$$\begin{array}{r} 5342 \\ +\ 1256 \\ \hline 6598 \end{array}$$

Zainab has added the tens column incorrectly. 4 tens plus 5 tens equals 9 tens, not 8 tens.

Ben has not lined up the numbers correctly before adding them, so the place-value of his digits is incorrect.

To be able to add two 4-digit numbers

Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

EVALUATION:

Always, Sometimes or Never?

a) When adding two 4-digit numbers using the column method, we should _____ start with the thousands digits and _____ start with the ones digits.

b) A number with 4-digits _____ has an amount of thousands greater than 0.

c) A number with 4-digits _____ has a hundreds digit less than 9.

d) Two 4-digit numbers are being added. They both have an odd number of ones. The number of ones in the answer will _____ be odd.

To be able to add two 4-digit numbers

Success Criteria:

Mastery:
I can add two 4-digit numbers **where there is no exchanging**.

Greater Depth:
I can apply my knowledge of adding 4-digit numbers when solving more complex problems.

EVALUATION:

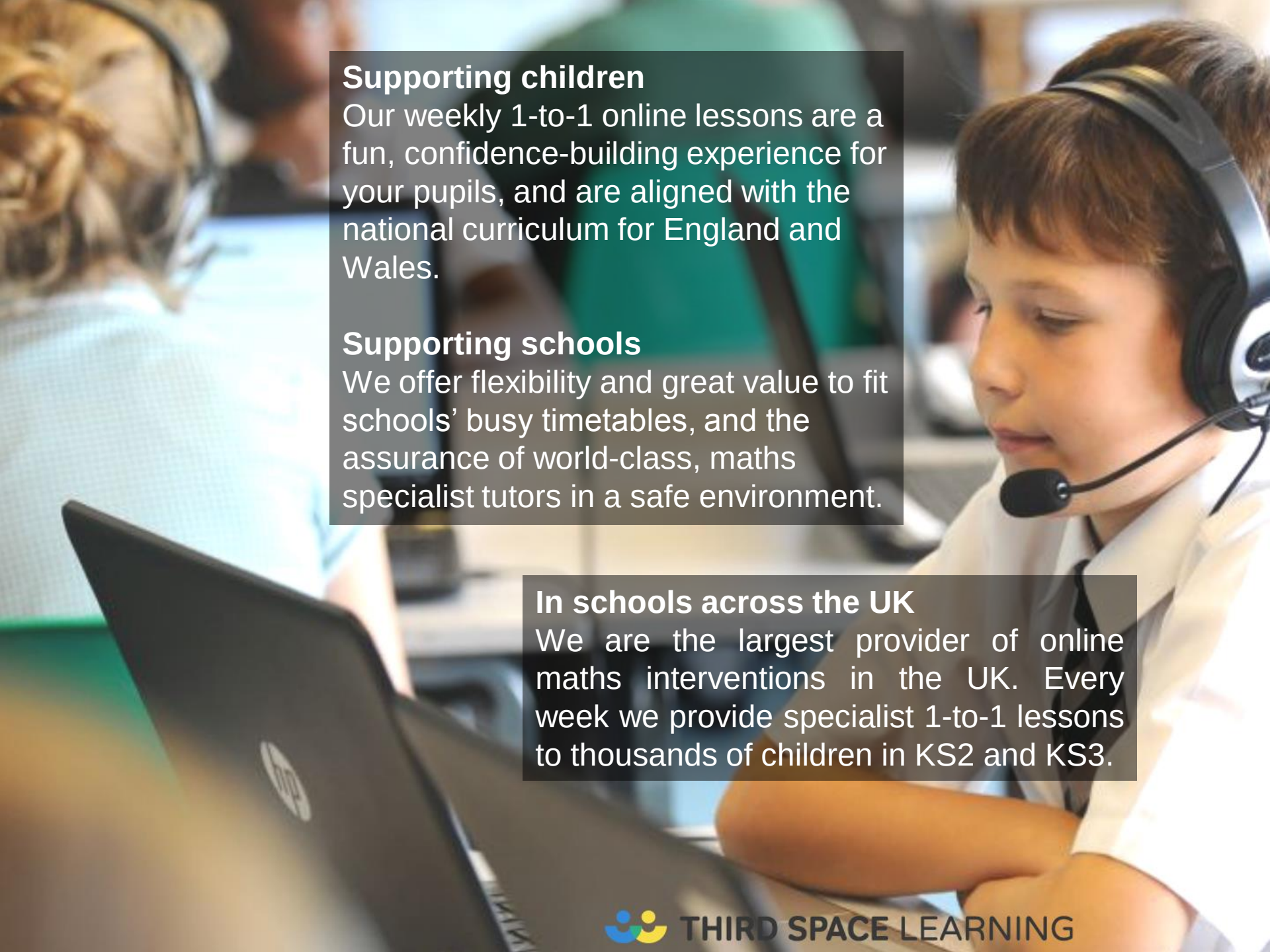
Always, Sometimes or Never?

a) When adding two 4-digit numbers using the column method, we should **NEVER** start with the thousands digits and **ALWAYS** start with the ones digits.

b) A number with 4-digits **ALWAYS** has an amount of thousands greater than 0.

c) A number with 4-digits **SOMETIMES** has a hundreds digit less than 9.

d) Two 4-digit numbers are being added. They both have an odd number of ones. The number of ones in the answer will **NEVER** be odd.



Supporting children
Our weekly 1-to-1 online lessons are a fun, confidence-building experience for your pupils, and are aligned with the national curriculum for England and Wales.

Supporting schools
We offer flexibility and great value to fit schools' busy timetables, and the assurance of world-class, maths specialist tutors in a safe environment.

In schools across the UK
We are the largest provider of online maths interventions in the UK. Every week we provide specialist 1-to-1 lessons to thousands of children in KS2 and KS3.

THIRD SPACE LEARNING