

The following document has a series of 10 lessons for Year 4 addition. It will support the teaching of the skills. There are also supporting worksheets. These can be viewed on a mobile phone/tablet/laptop or computer and completed on a separate piece of paper.

If you prefer you can print the sheet to complete.

At the end of the document there is a super challenge if you feel ready to tackle it!

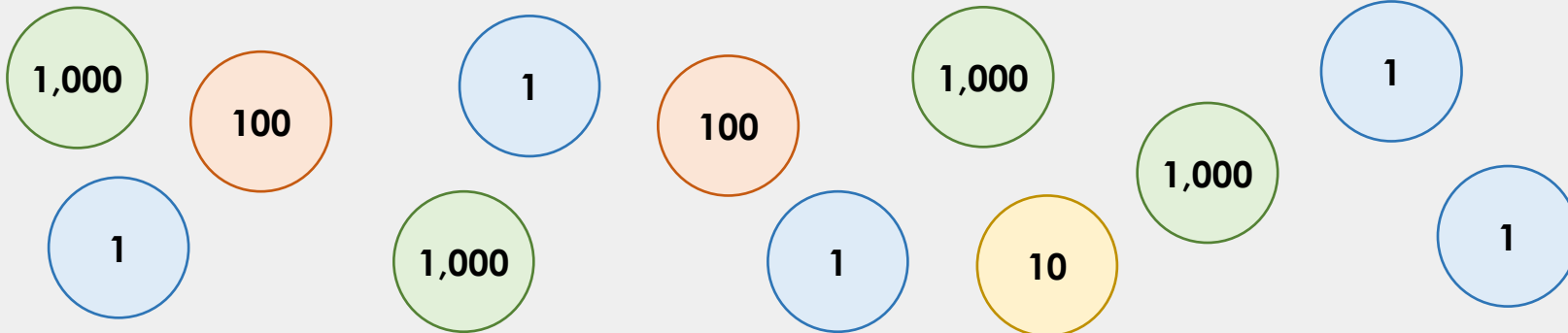
Lesson 1

TBAT add 1s, 10s, 100s and 1000s

Starter

If you sort the counters into the correct column what number is represented?

Thousands	Hundreds	Tens	Ones



Starter

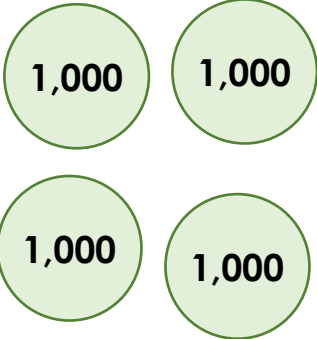
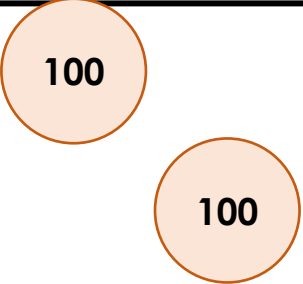

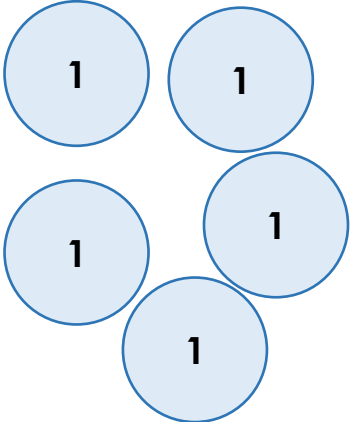
There is a supporting worksheet for this activity.

You could print and use the table or draw your own if needed.

Question 1

Starter

If you sort the counters into the correct column what number is represented?

Thousands	Hundreds	Tens	Ones
			

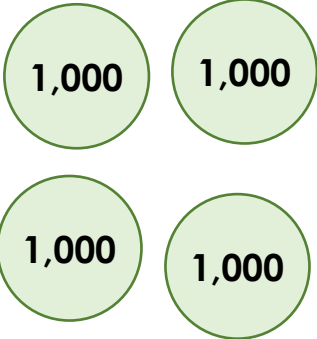
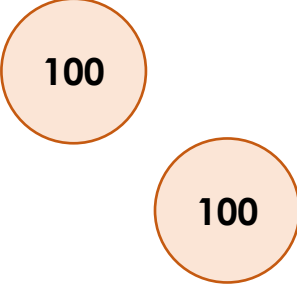

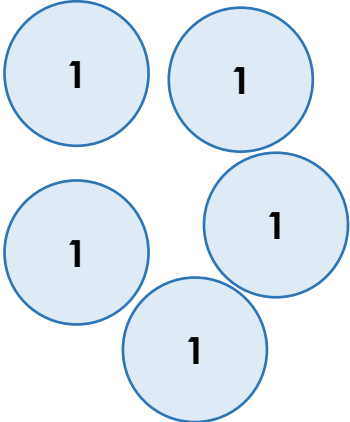
Question 1
answer

4215

Starter

Question 2

Add 3000 - What number is represented now?

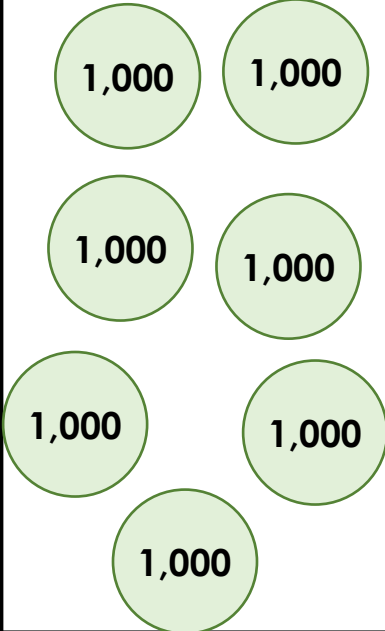
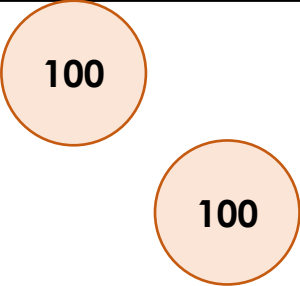

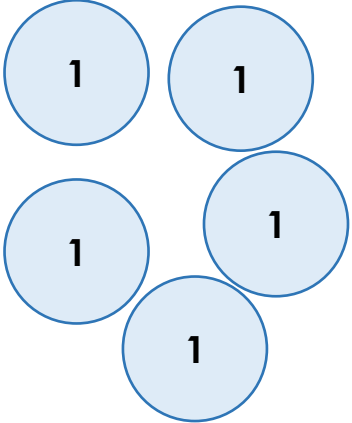
Thousands	Hundreds	Tens	Ones
			

Starter

Add 3000 - What number is represented now?

Question 2
answer

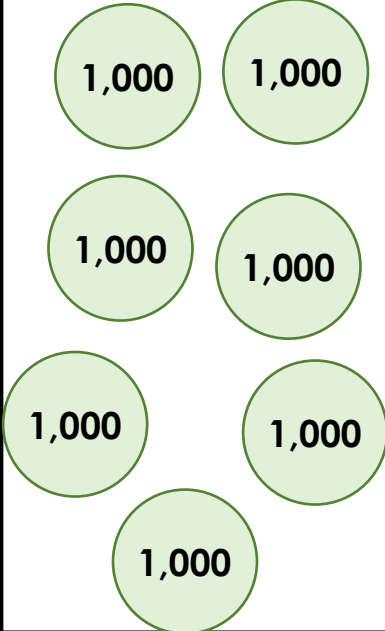
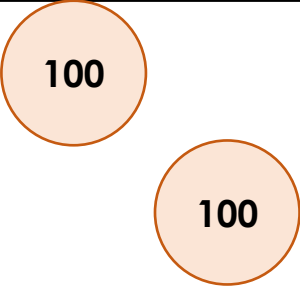

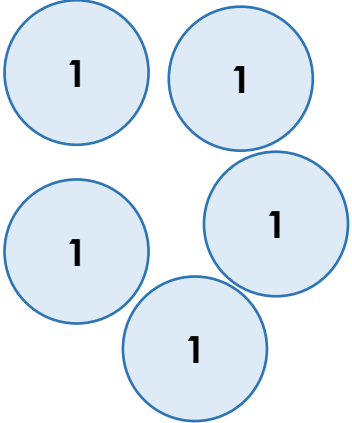
7215

Thousands	Hundreds	Tens	Ones
			

Starter

Question 3

Add 3 - What number is represented now?

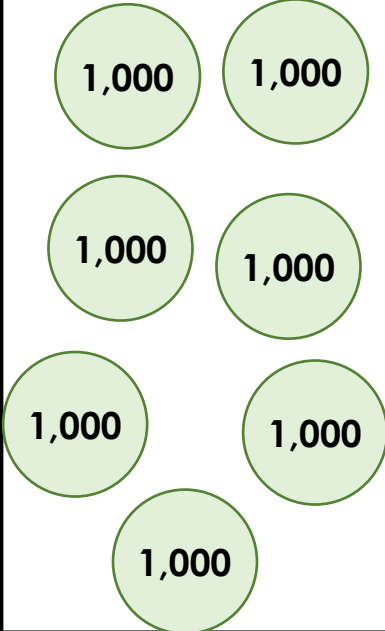
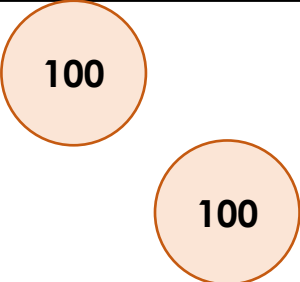

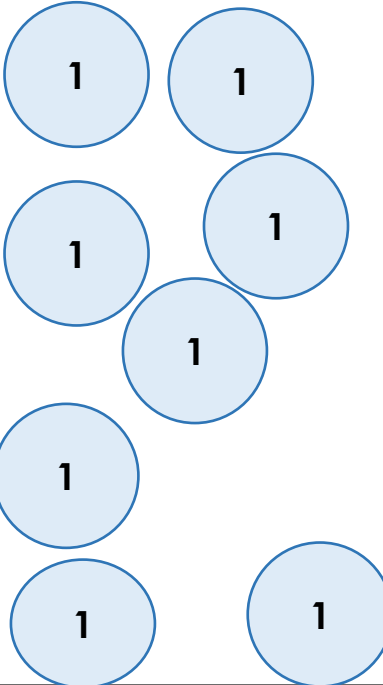
Thousands	Hundreds	Tens	Ones
			

Starter

Add 3 - What number is represented now?

Question 3
answer

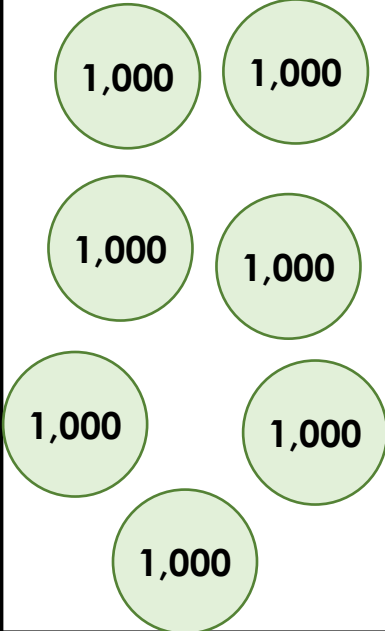
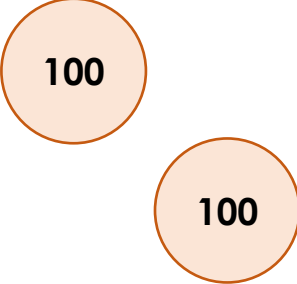

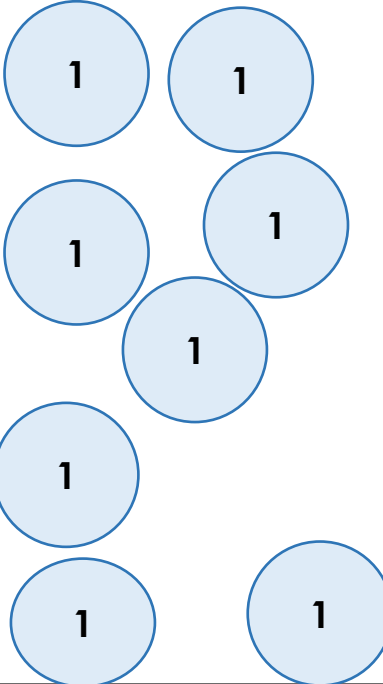
7218

Thousands	Hundreds	Tens	Ones
			

Starter

Question 4

Add 200 - What number is represented now?

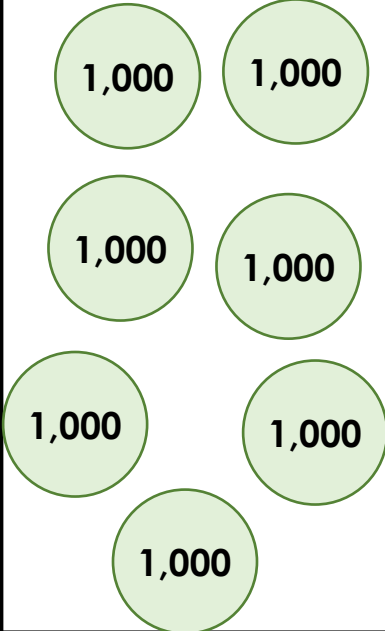
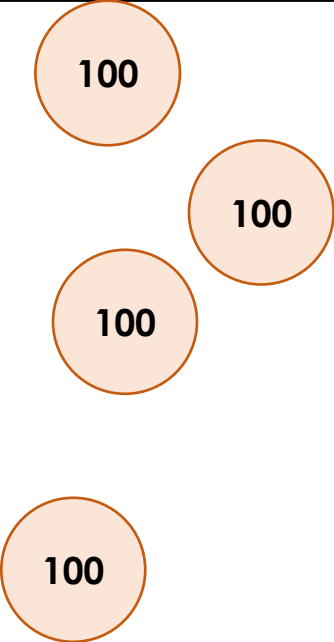

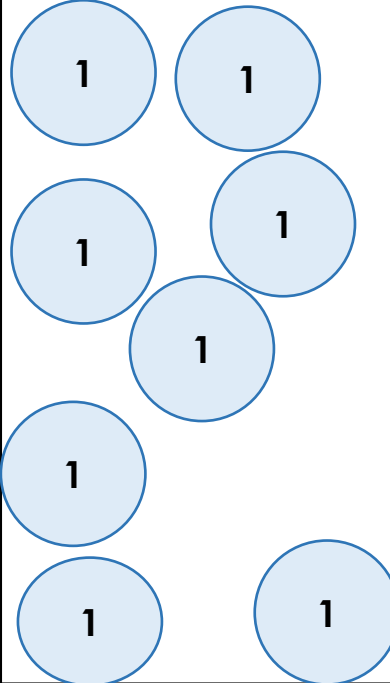
Thousands	Hundreds	Tens	Ones
			

Starter

Question 4
answer

Add 200 - What number is represented now?

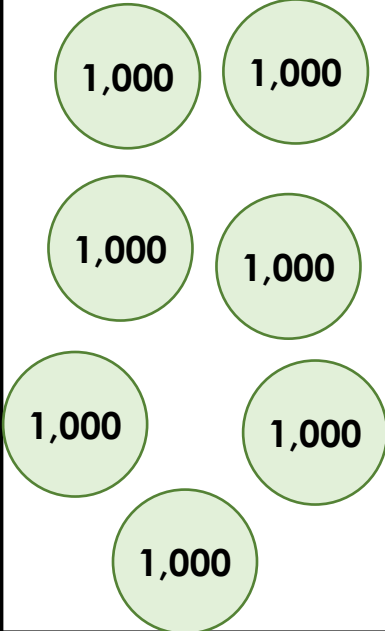
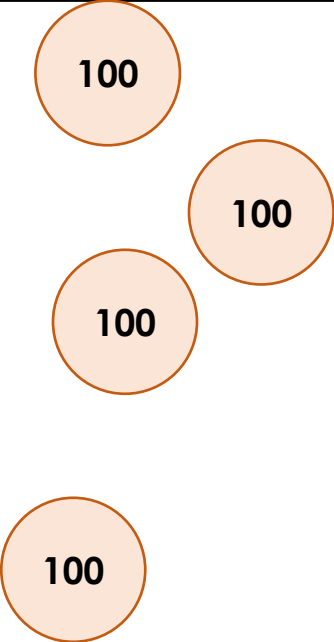

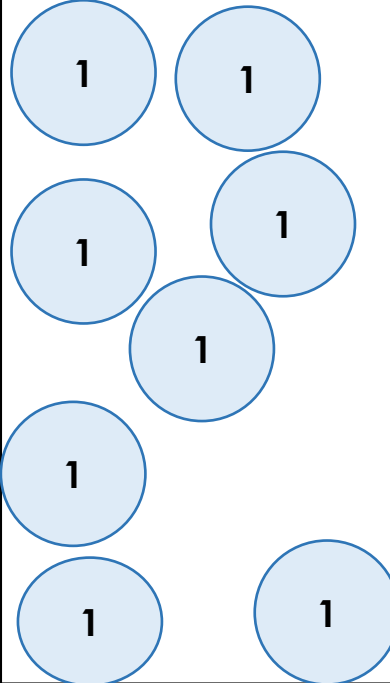
7418

Thousands	Hundreds	Tens	Ones
			

Starter

Question 5

Add 70 - What number is represented now?

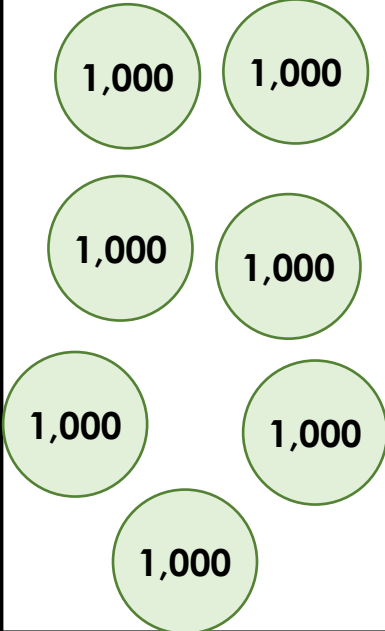
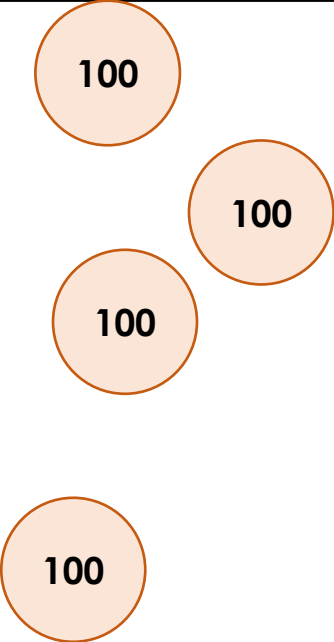
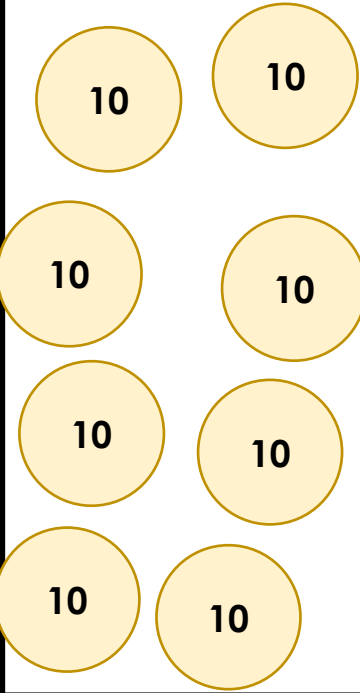
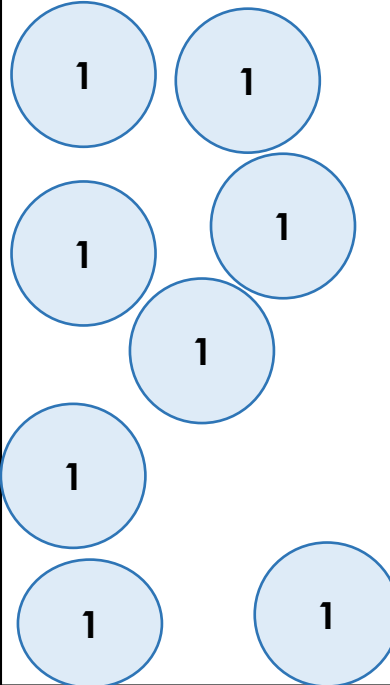
Thousands	Hundreds	Tens	Ones
			

Starter

Add 70 - What number is represented now?

Question 5
answer

7488

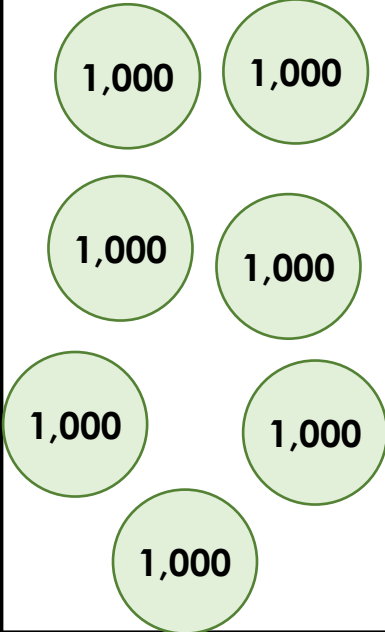
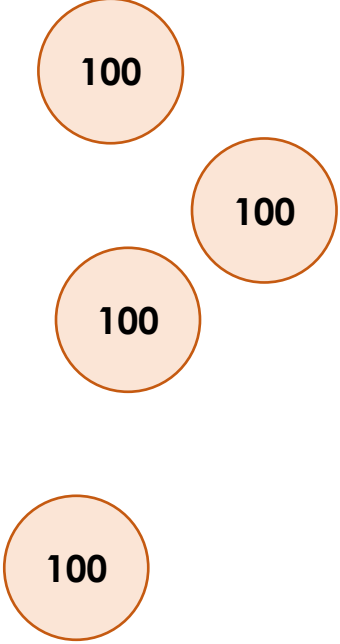
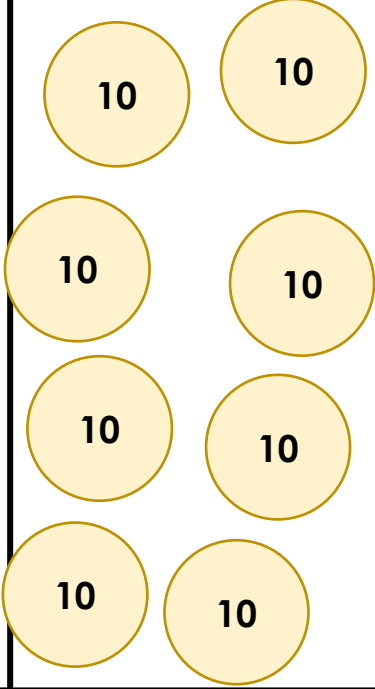
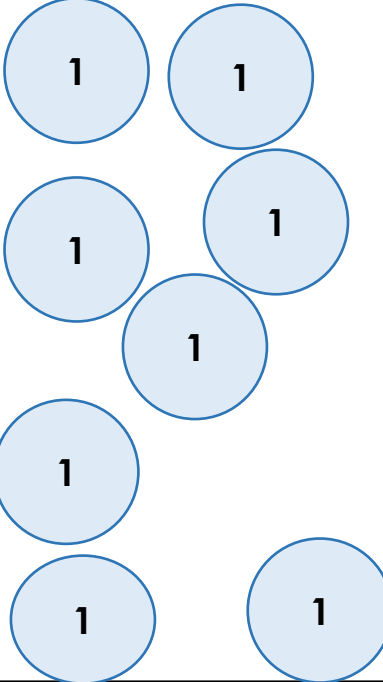
Thousands	Hundreds	Tens	Ones
			

Discuss - which numbers changed when you added the 1s, 10, 100s or 1000s?

Starter

CHALLENGE

Challenge - What happens if we add 50 more to our final number?

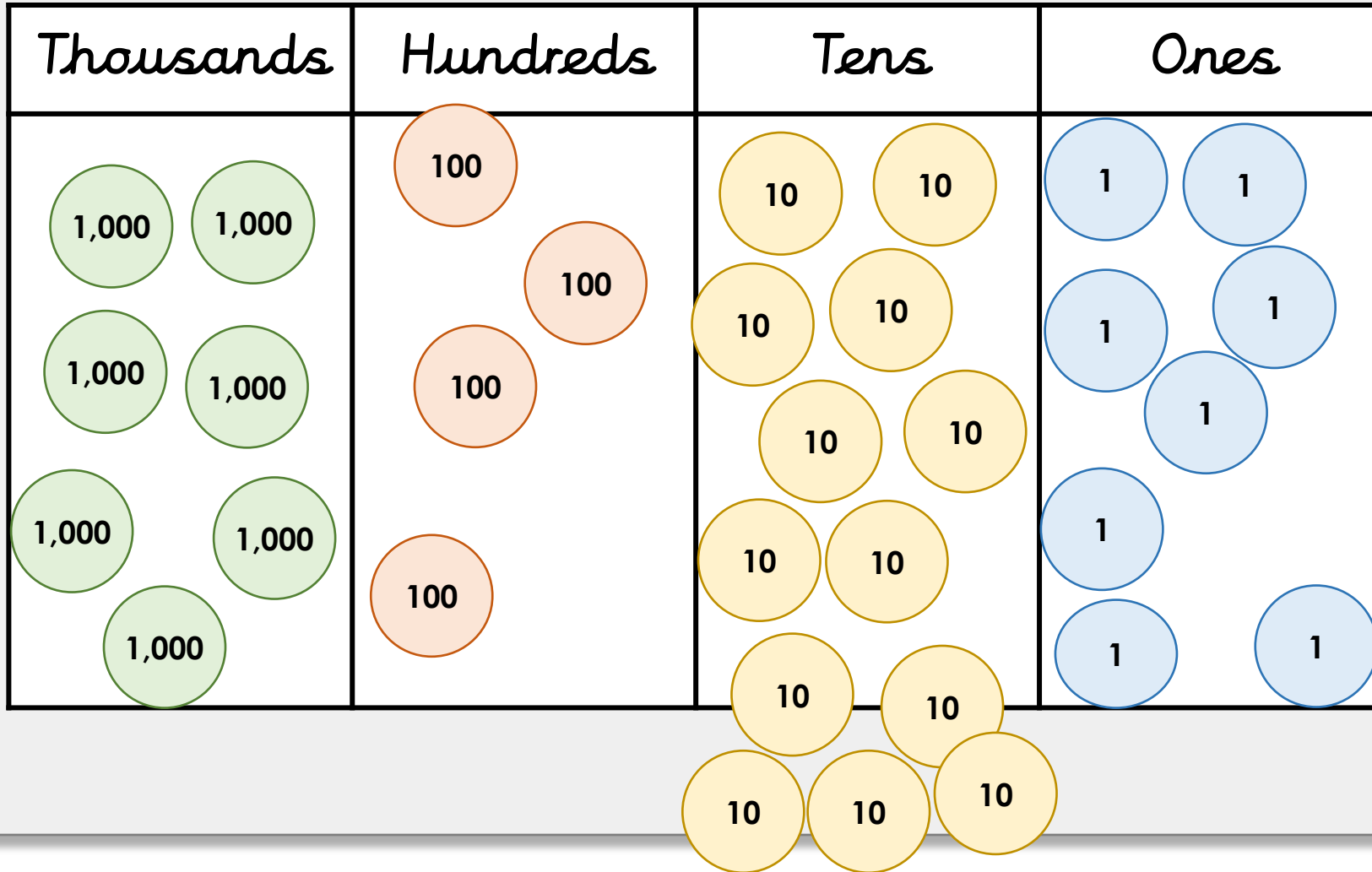
Thousands	Hundreds	Tens	Ones
			

Starter

Challenge - What happens if we add 50 more to our final number?

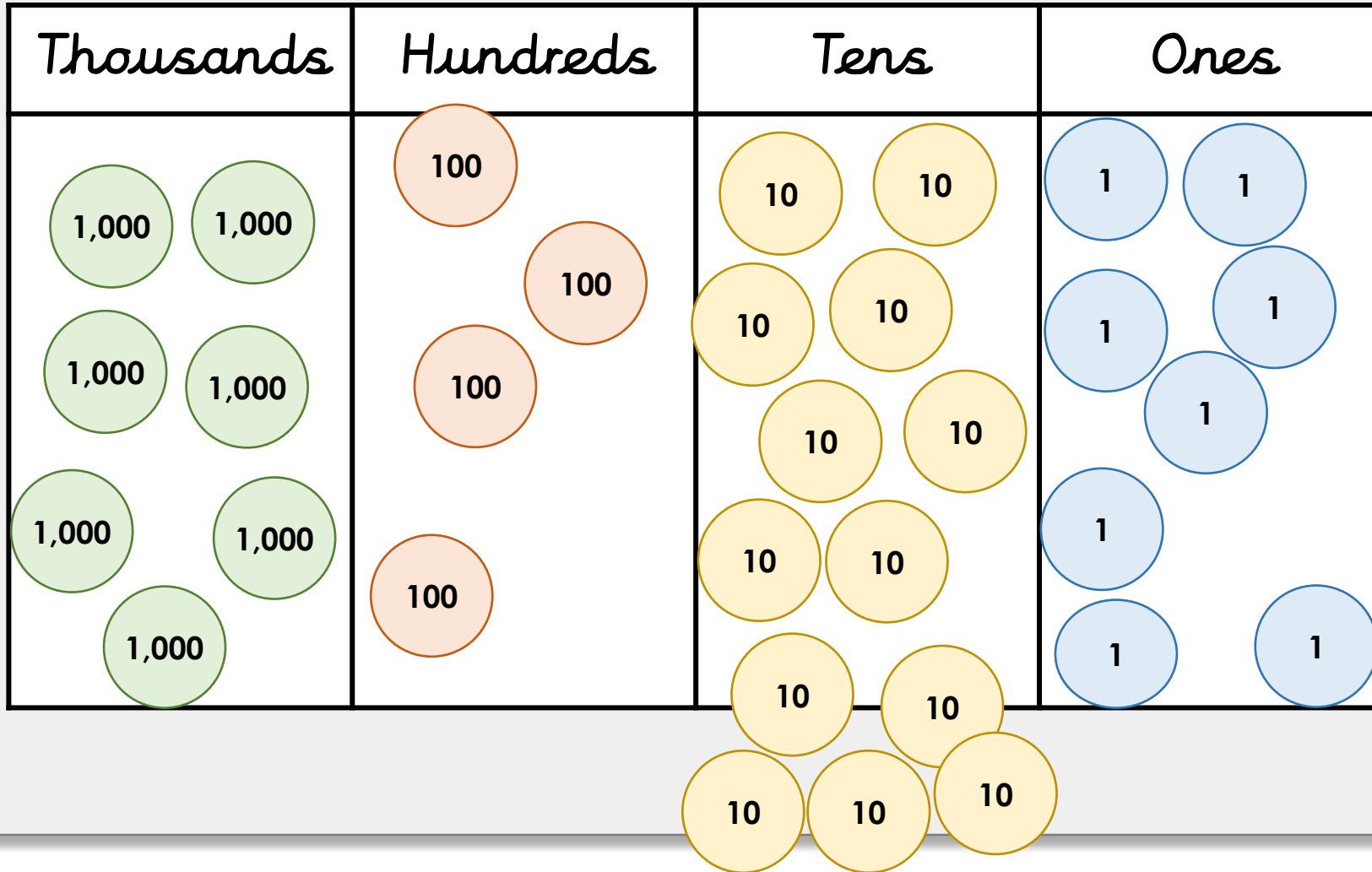
CHALLENGE

Step 1 - Add
5 tens



Starter

Challenge - What happens if we add 50 more to our final number?

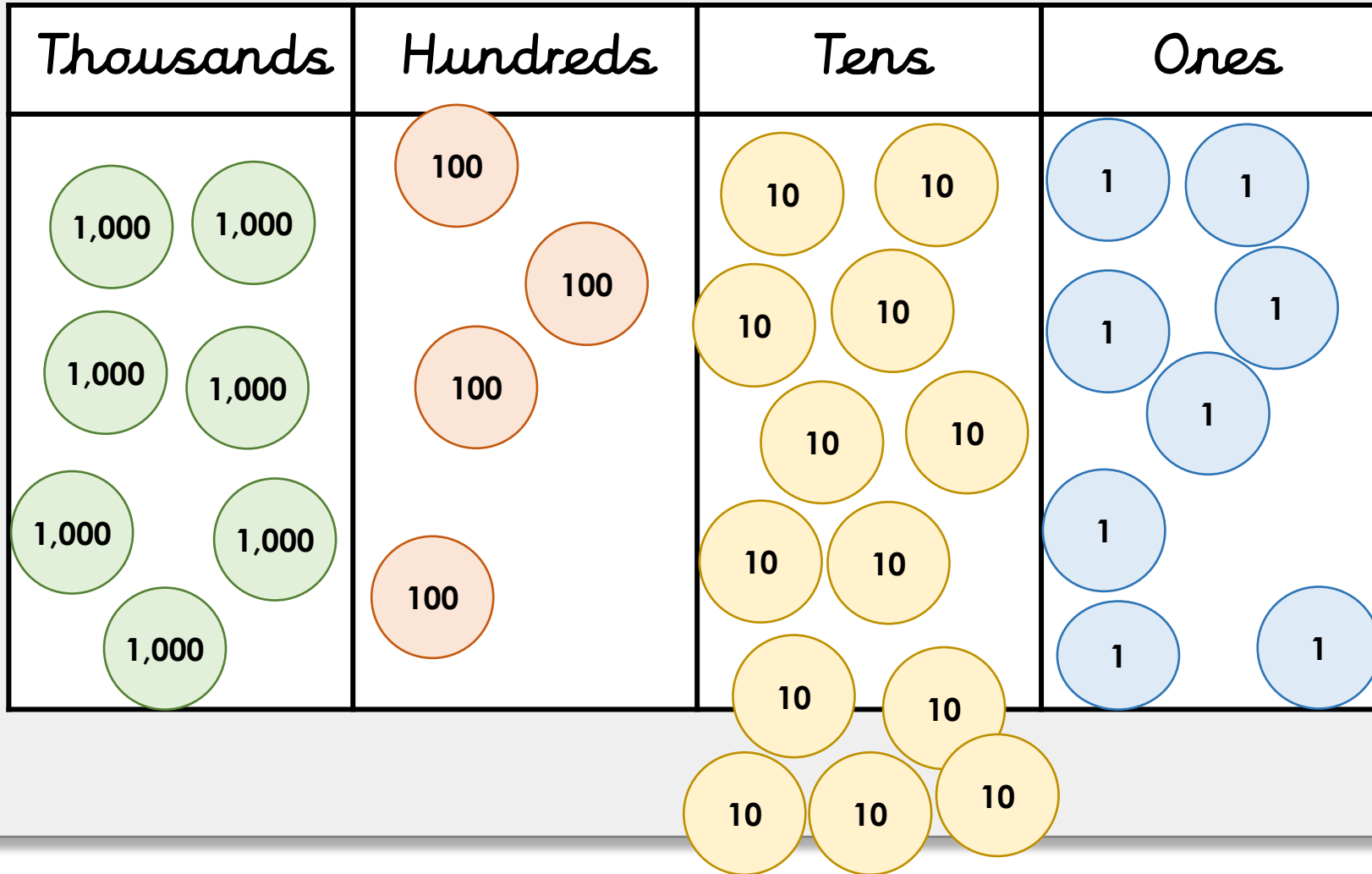


CHALLENGE

Step 2 - What do you notice?

Starter

Challenge - What happens if we add 50 more to our final number?



CHALLENGE

Step 2 - What do you notice?

There are more than 10 tens so exchange 10 tens for one hundred.

Starter

Challenge - What happens if we add 50 more to our final number?

Thousands	Hundreds	Tens	Ones

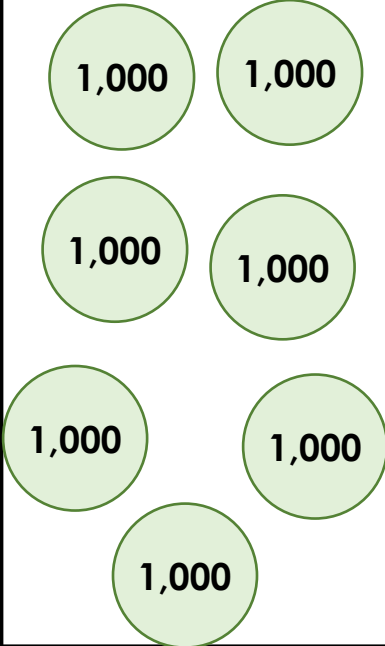
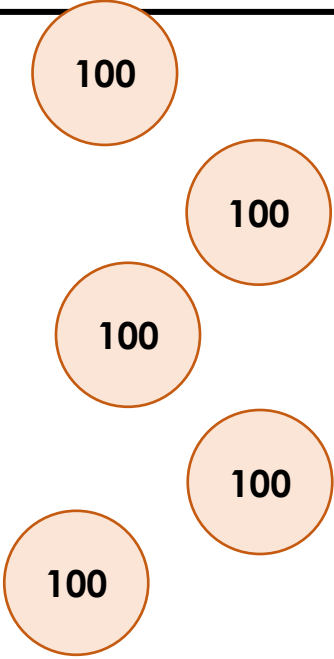
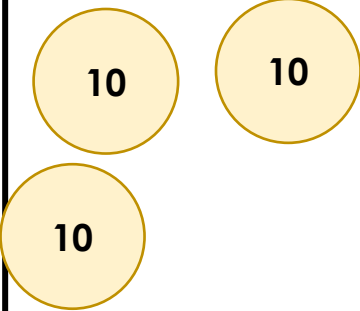
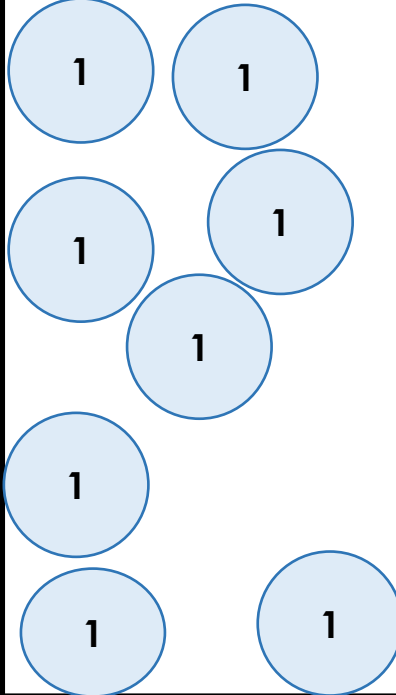
CHALLENGE

Step 2 - What do you notice?

There are more than 10 tens so exchange 10 tens for one hundred.

Starter

Challenge - What happens if we add 50 more to our final number?

Thousands	Hundreds	Tens	Ones
			

CHALLENGE

Answer

7538

Activity - Use what you learnt during the starter to complete the additions on the sheet 😊

You can do this mentally or draw pictures to help you.

There is a challenge activity if you want to try this 😊

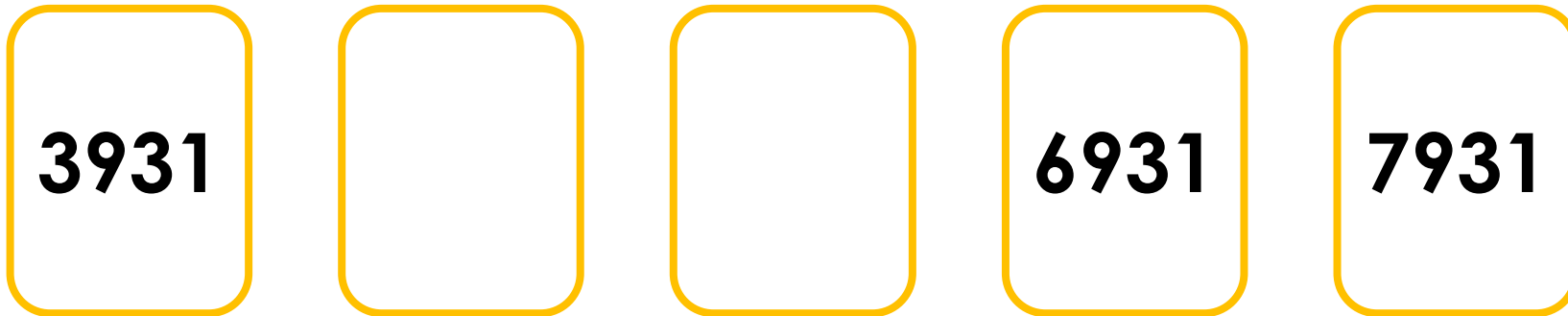
Lesson 2

TBAT add 1s, 10s, 100s and 1000s
Problem Solving and Reasoning in Sequences

Starter

Today you are going to use your knowledge from yesterday to solve problems 😊

Complete the sequence



Discuss

What is the sequence increasing by each time?

Explain how you know.

Answer

Complete the sequence



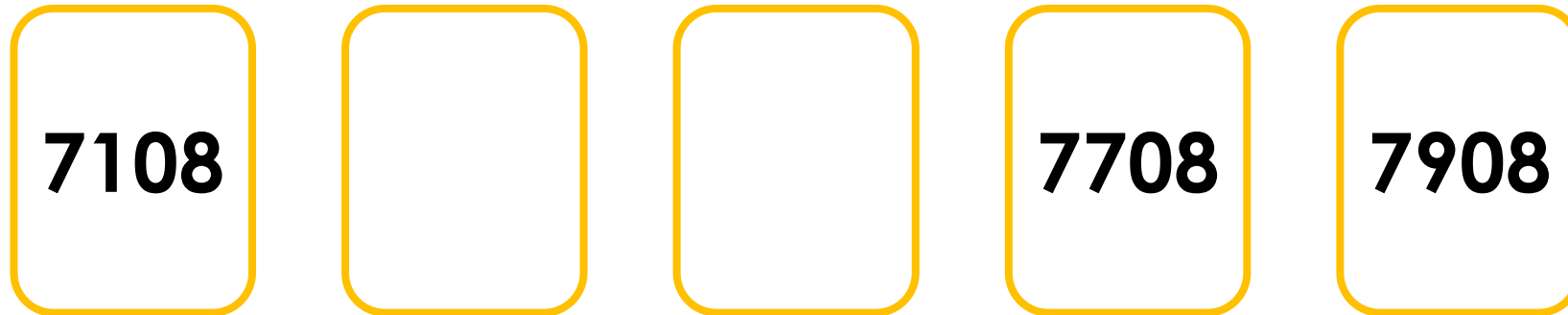
What is the sequence increasing by each time?

Explain how you know.

The thousands digit is the only one that changes. The difference between 6000 and 7000 is 1000 so the sequence must be increasing by 1000 each time.

Starter 2

Complete the sequence



Discuss

What is the sequence increasing by each time?
Explain how you know.

Starter 2

Complete the sequence



Discuss

What is the sequence increasing by each time?

Explain how you know.

The hundreds digit is the only one that changes. The difference between 700 and 900 is 200 so the sequence must be increasing by 200 each time.

Activity - Use what you learnt during the starter to complete the sequences on the sheet 😊

You can do this mentally or draw pictures to help you.

There is a challenge activity if you want to try this 😊

Lesson 3

TBAT add two 4-digit numbers - no exchange

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	1
+	3	5	5	6

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	1
+	3	5	5	6

Steps

- Add the ones

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	1
+	3	5	5	6
				7

Steps

- Add the ones

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	1
+	3	5	5	6
				7

Steps

- Add the ones
- Add the tens

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	1
+	3	5	5	6
			7	7

Steps

- Add the ones
- Add the tens

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	1
+	3	5	5	6
			7	7

Steps

- Add the ones
- Add the tens
- Add the hundreds

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	1
+	3	5	5	6
		9	7	7

Steps

- Add the ones
- Add the tens
- Add the hundreds

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	1
+	3	5	5	6
		9	7	7

Steps

- Add the ones
- Add the tens
- Add the hundreds
- Add the thousands

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	1
+	3	5	5	6
	4	9	7	7

Steps

- Add the ones
- Add the tens
- Add the hundreds
- Add the thousands

Activity - Use what you learnt during the starter to complete the additions on the sheet 😊

You can use column method to work them out or mentally if you can.

There is a challenge activity if you want to try this 😊

Lesson 4

TBAT add two 4-digit numbers - no exchange
Problem solving and reasoning

Starter - Discuss - What have I done wrong?

	Th	H	T	O
	4	6	1	3
+	2	1	5	4
	6	7	5	7

Starter - Discuss - What have I done wrong?

	Th	H	T	O
	7	3	2	4
+	1	6	7	2
	8	3	9	6

Starter - Discuss - What have I done wrong?

	Th	H	T	O
	8	6	7	2
+	1	3	2	1
	7	3	5	1

Now you are more confident
adding two 4-digit numbers with
no exchange you are going to
use your knowledge to solve
problems 😊

There are 2 problems and a
challenge problem. Have fun 😊

Lesson 5

TBAT add two 4-digit numbers - with one exchange

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	5
+	3	5	5	7

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	5
+	3	5	5	7

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	5
+	3	5	5	7
				2
			1	

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	5
+	3	5	5	7
				2
			1	

Step 1 - Add the ones

If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Step 2 - Add the tens (don't forget any tens carried from the ones)

If the number is higher than ten tens, carry the hundreds underneath the hundreds column and write the tens in the tens column

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	5
+	3	5	5	7
			8	2
			1	

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Step 2 - Add the tens (don't forget any tens carried from the ones)

If the number is higher than ten tens, carry the hundreds underneath the hundreds column and write the tens in the tens column

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	5
+	3	5	5	7
			8	2
			1	

Step 3 - Add the hundreds
(don't forget any hundreds
carried from the tens)

If the number is higher than ten
hundreds, carry the thousands
underneath the thousands
column and write the hundreds
in the hundreds column

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	5
+	3	5	5	7
		9	8	2
			1	

Step 3 - Add the hundreds
(don't forget any hundreds
carried from the tens)

If the number is higher than ten
hundreds, carry the thousands
underneath the thousands
column and write the hundreds
in the hundreds column

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	5
+	3	5	5	7
		9	8	2
			1	

Step 3 - Add the hundreds (don't forget any hundreds carried from the tens)

If the number is higher than ten hundreds, carry the thousands underneath the thousands column and write the hundreds in the hundreds column

Step 4 - Add the thousands (don't forget any thousands carried from the hundreds)

Starter - Discuss - How would you solve this addition?

	Th	H	T	O
	1	4	2	5
+	3	5	5	7
	4	9	8	2
			1	

Step 3 - Add the hundreds (don't forget any hundreds carried from the tens)

If the number is higher than ten hundreds, carry the thousands underneath the thousands column and write the hundreds in the hundreds column

Step 4 - Add the thousands (don't forget any thousands carried from the hundreds)

Activity - Use what you learnt during the starter to complete the additions on the sheet 😊

You can use column method to work them out or mentally if you can.

There is a challenge activity if you want to try this 😊

Lesson 6

TBAT add two 4-digit numbers - with one exchange - problem solving

Starter - Recap - How would you solve this addition?

	Th	H	T	O
	3	1	5	2
+	2	5	9	2

Starter - Recap - How would you solve this addition?

	Th	H	T	O
	3	1	5	2
+	2	5	9	2

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Starter - Recap - How would you solve this addition?

	Th	H	T	O
	3	1	5	2
+	2	5	9	2
				4

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Starter - Recap - How would you solve this addition?

	Th	H	T	O
	3	1	5	2
+	2	5	9	2
				4

Step 1 - Add the ones

If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Step 2 - Add the tens (don't forget any tens carried from the ones)

If the number is higher than ten tens, carry the hundreds underneath the hundreds column and write the tens in the tens column

Starter - Recap - How would you solve this addition?

	Th	H	T	O
	3	1	5	2
+	2	5	9	2
			4	4
		1		

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Step 2 - Add the tens (don't forget any tens carried from the ones)

If the number is higher than ten tens, carry the hundreds underneath the hundreds column and write the tens in the tens column

Starter - Recap - How would you solve this addition?

	Th	H	T	O
	3	1	5	2
+	2	5	9	2
			4	4
		1		

Step 3 - Add the hundreds (don't forget any hundreds carried from the tens)

If the number is higher than ten hundreds, carry the thousands underneath the thousands column and write the hundreds in the hundreds column

Starter - Recap - How would you solve this addition?

	Th	H	T	O
	3	1	5	2
+	2	5	9	2
		7	4	4
		1		

Step 3 - Add the hundreds (don't forget any hundreds carried from the tens)

If the number is higher than ten hundreds, carry the thousands underneath the thousands column and write the hundreds in the hundreds column

Starter - Recap - How would you solve this addition?

	Th	H	T	O
	3	1	5	2
+	2	5	9	2
		7	4	4
		1		

Step 3 - Add the hundreds
(don't forget any hundreds
carried from the tens)

If the number is higher than ten
hundreds, carry the thousands
underneath the thousands
column and write the hundreds
in the hundreds column

Step 4 - Add the thousands
(don't forget any thousands
carried from the hundreds)

Starter - Recap - How would you solve this addition?

	Th	H	T	O
	3	1	5	2
+	2	5	9	2
	5	7	4	4
		1		

Step 3 - Add the hundreds
(don't forget any hundreds
carried from the tens)

If the number is higher than ten
hundreds, carry the thousands
underneath the thousands
column and write the hundreds
in the hundreds column

Step 4 - Add the thousands
(don't forget any thousands
carried from the hundreds)

Now you are more confident
adding two 4-digit numbers with
one exchange you are going to
use your knowledge to solve
problems 😊

There is a problem that has 3
questions and a challenge
problem. Have fun 😊

Lesson 7

TBAT add two 4-digit numbers - with more than one exchange

Starter - What have I done wrong?

	Th	H	T	O
	5	6	3	4
+	2	7	1	8
	7	3	4	2
			1	

Starter - What have I done wrong?

	Th	H	T	O
	5	6	3	4
+	2	7	1	8

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Starter - What have I done wrong?

	Th	H	T	O
	5	6	3	4
+	2	7	1	8
				2
			1	

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Starter - What have I done wrong?

	Th	H	T	O
	5	6	3	4
+	2	7	1	8
				2
			1	

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Step 2 - Add the tens (don't forget any tens carried from the ones.)

If the number is higher than ten tens, carry the hundreds underneath the hundreds column and write the tens in the tens column

Starter - What have I done wrong?

	Th	H	T	O
	5	6	3	4
+	2	7	1	8
			5	2
			1	

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Step 2 - Add the tens (don't forget any tens carried from the ones)

If the number is higher than ten tens, carry the hundreds underneath the hundreds column and write the tens in the tens column

Starter - What have I done wrong?

	Th	H	T	O
	5	6	3	4
+	2	7	1	8
			5	2
			1	

Step 3 - Add the hundreds
(don't forget any hundreds
carried from the tens)

If the number is higher than ten
hundreds, carry the thousands
underneath the thousands
column and write the hundreds
in the hundreds column

Starter - What have I done wrong?

	Th	H	T	O
	5	6	3	4
+	2	7	1	8
		3	5	2
	1		1	

Step 3 - Add the hundreds
(don't forget any hundreds
carried from the tens)

If the number is higher than ten
hundreds, carry the thousands
underneath the thousands
column and write the hundreds
in the hundreds column

Starter - What have I done wrong?

	Th	H	T	O
	5	6	3	4
+	2	7	1	8
		3	5	2
	1		1	

Step 3 - Add the hundreds (don't forget any hundreds carried from the tens)

If the number is higher than ten hundreds, carry the thousands underneath the thousands column and write the hundreds in the hundreds column

Step 4 - Add the thousands (don't forget any thousands carried from the hundreds)

Starter - What have I done wrong?

	Th	H	T	O
	5	6	3	4
+	2	7	1	8
	8	3	5	2
	1		1	

Step 3 - Add the hundreds
(don't forget any hundreds
carried from the tens.)

If the number is higher than ten
hundreds, carry the thousands
underneath the thousands
column and write the hundreds
in the hundreds column

Step 4 - Add the thousands
(don't forget any thousands
carried from the hundreds)

Activity - Did you notice my mistake? Time for more practise.
Be the teacher and mark my work 😊

Challenge - Is the answer on the left greater than, less than or equal to the answer on the right?

Lesson 8

TBAT add two 4-digit numbers - with more than one exchange

Problem Solving and Reasoning

Starter - Recap - How would I solve this addition?

	Th	H	T	O
	1	5	6	8
+	3	6	2	9

Starter - What have I done wrong?

	Th	H	T	O
	1	5	6	8
+	3	6	2	9

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Starter - What have I done wrong?

	Th	H	T	O
	1	5	6	8
+	3	6	2	9
				7
			1	

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Starter - What have I done wrong?

	Th	H	T	O
	1	5	6	8
+	3	6	2	9
				7
			1	

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Step 2 - Add the tens (don't forget any tens carried from the ones)

If the number is higher than ten tens, carry the hundreds underneath the hundreds column and write the tens in the tens column

Starter - What have I done wrong?

	Th	H	T	O
	1	5	6	8
+	3	6	2	9
			9	7
			1	

Step 1 - Add the ones
If the number is higher than ten ones, carry the tens underneath the tens column and write the ones in the ones column

Step 2 - Add the tens (don't forget any tens carried from the ones)

If the number is higher than ten tens, carry the hundreds underneath the hundreds column and write the tens in the tens column

Starter - What have I done wrong?

	Th	H	T	O
	1	5	6	8
+	3	6	2	9
			9	7
			1	

Step 3 - Add the hundreds (don't forget any hundreds carried from the tens)

If the number is higher than ten hundreds, carry the thousands underneath the thousands column and write the hundreds in the hundreds column

Starter - What have I done wrong?

	Th	H	T	O
	1	5	6	8
+	3	6	2	9
		1	9	7
	1		1	

Step 3 - Add the hundreds
(don't forget any hundreds
carried from the tens)

If the number is higher than ten
hundreds, carry the thousands
underneath the thousands
column and write the hundreds
in the hundreds column

Starter - What have I done wrong?

	Th	H	T	O
	1	5	6	8
+	3	6	2	9
		1	9	7
	1		1	

Step 3 - Add the hundreds
(don't forget any hundreds
carried from the tens)

If the number is higher than ten
hundreds, carry the thousands
underneath the thousands
column and write the hundreds
in the hundreds column

Step 4 - Add the thousands
(don't forget any thousands
carried from the hundreds)

Starter - What have I done wrong?

	Th	H	T	O
	1	5	6	8
+	3	6	2	9
	5	1	9	7
	1		1	

Step 3 - Add the hundreds (don't forget any hundreds carried from the tens)

If the number is higher than ten hundreds, carry the thousands underneath the thousands column and write the hundreds in the hundreds column

Step 4 - Add the thousands (don't forget any thousands carried from the hundreds)

Time for some more problem solving 😊

Your activity is to find out which mountains George could have climbed.

Challenge - What about his friend Tom?

Lesson 9

TBAT estimate

We can estimate what our answers to our calculations could be using rounding.

Rounding song
Use the rules to
help you complete
the activities

Rounding

1. Underline the place value spot you are rounding to.

4,667

2. Circle the next door neighbor.

4,667

3. Repeat the poem.
Find your number
Look **right** next door →
4 or less, just ignore
5+ add one more

4. Decide if the underlined digit stays the same or goes up by one using the circled digit.
6 tells us to add one more!

5. Write the new number and change all numbers after the underlined number to zeros.

4,667 → 5,000

Starter

We can estimate $2,457 + 1,623$ by rounding each number to the nearest thousand, hundred, and ten.

$$\text{A. } 2000 + 2000 = 4000$$

$$\text{B. } 2500 + 1600 = 4100$$

$$\text{C. } 2460 + 1620 = 4080$$

Which is the most accurate estimate?

Which is the least accurate estimate?

Which is the best estimate?

Discuss

Starter

We can estimate $2,457 + 1,623$ by rounding each number to the nearest thousand, hundred, and ten.

$$\text{A. } 2000 + 2000 = 4000$$

$$\text{B. } 2500 + 1600 = 4100$$

$$\text{C. } 2460 + 1620 = 4080$$

Answers

Which is the most accurate estimate? **C**

Which is the least accurate estimate? **A**

Which is the best estimate? **C**

Use your rounding to help you create 3 estimates for the 3 calculations.

CHALLENGE - How did I get the estimated answer of 2500?

Lesson 10

TBAT estimate

Reasoning and Problem
Solving

Use your rounding skills to help you estimate answers.

Can you help Farmer Wayne? Which animals can he feed?

Rounding

1. Underline the place value spot you are rounding to.

4,667

2. Circle the next door neighbor.

4,667

3. Repeat the poem.

Find your number

Look **right** next door →

4 or less, just ignore

5+ add one more

4. Decide if the underlined digit stays the same or goes up by one using the circled digit. 6 tells us to add one more!

5. Write the new number and change all numbers after the underlined number to zeros.

4,667 → 5,000

Addition Unit - Super Challenge

TBAT add two 4-digit
numbers

The challenge will take a lot of thinking about!
Give it your best shot 😊 I will be very
impressed if you find a solution.

Estimation may help you 😊

There will be more than one answer but I have
put one on the next page on the worksheets as
an example / support.