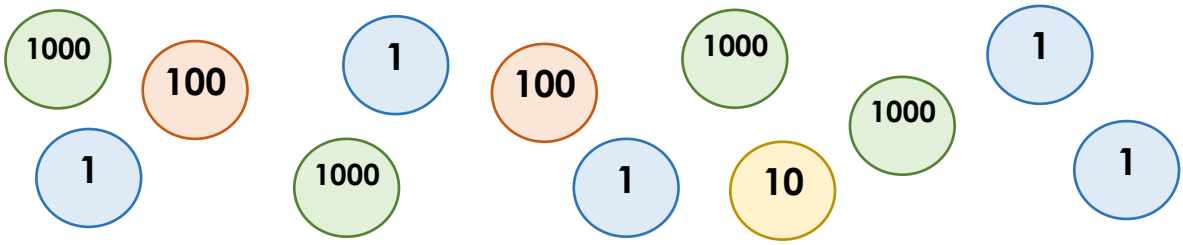
Lesson 1 – Starter

Use the chart below to draw your working out and find the answers



Thousands	Hundreds	Tens	Ones

1. If you added the counters to the chart, what number would be represented?
2. Add 3000 – What number is represented now?
3. Now add 3 – What number is represented now?
4. Now add 200 – What number is represented now?
5. Now add 70 – What number is represented now?

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

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

Lesson 1 - Activity

Start Number	1243
Add 2000	
Add 300	
Add 20	
Add 5	
Add 3000	

Start Number	3721
Add 5	
Add 20	
Add 3000	
Add 100	
Add 3	

Start Number	3251
Add 5000	
Add 40	
Add 5	
Add 700	
Add 40	

Start Number	2532
Add 7000	
Add 7	
Add 70	
Add 700	
Add 7	

Start Number	7452
Add 5	
Add 20	
Add 1000	
Add 700	
Add 9	

Start Number	5837
Add 1000	
Add 8	
Add 7	
Add 70	
Add 300	

Lesson 1 - CHALLENGE

Step 1 - Create your own

Start Number	__ __ __ __
Add _____	
Add _____	
Add _____	
Add _____	
Add _____	

Start Number	__ __ __ __
Add _____	
Add _____	
Add _____	
Add _____	
Add _____	

Step 2 - What did I add?

Start Number	3567
Add _____	3767
Add _____	5767
Add _____	5769
Add _____	8769
Add _____	8969

Start Number	1563
Add _____	5563
Add _____	5593
Add _____	5595
Add _____	5995
Add _____	9995

Start Number	7315
Add _____	7319
Add _____	7359
Add _____	7859
Add _____	7861
Add _____	7921

Start Number	5673
Add _____	8673
Add _____	8675
Add _____	8681
Add _____	9281
Add _____	9351

Lesson 2 – Activity

Complete each sequence

What is the sequence increasing by each time?

Explain how you know.

8145	8146			8149
3422	3432			3462
1531		5531	7531	
1111		1133		1155
8745	8756		8778	
3176		5576		7976
2345				6385
1045		3467	4678	

Lesson 2 – CHALLENGE

Step 1 – Create your own sequences and explain them.

Step 2 – What has gone wrong? Correct and discuss

1234	1334	1434	1444	1454
5317	5337	5357	5367	5377
4153	4263	4363	4373	4483

Lesson 3 - Activity

1. 2341 + 5142 =
2. 1521 + 6245 =
3. 5602 + 4395 =
4. 7187 + 2612 =
5. 5320 + 4168 =
6. 7314 + 1453 =
7. 2652 + 5143 =
8. 4317 + 5372 =
9. 6372 + 3011 =
10. 8172 + 1513 =

Lesson 3 - CHALLENGE

Rosie adds 2 numbers together that total 4,444

Both numbers have 4 digits.

All the digits in both numbers are even.

What could the numbers be?

Prove it.

How many ways can you find?

Lesson 4 – Activity

Kayla is calculating the profit she made on different days of the week. Use the table to answer the questions.

Day of the week	Profit
Monday	£2241
Tuesday	£1654
Wednesday	£2148
Thursday	£1730
Friday	£1245
Saturday	£7126

a. What was the total profit made on Thursday and Friday?

b. What was the total profit made on Saturday and Monday?

c. Which made the greatest profit?

Monday and Tuesday

or

Wednesday and Thursday?

Seth is calculating the profit he made on different days of the week. Use the table to answer the questions.

Day of the week	Profit
Monday	£3203
Tuesday	£2512
Wednesday	£463
Thursday	Monday and Tuesday combined
Friday	£3232
Saturday	Double Fridays profit

a. What was the total profit made on Thursday and Friday?

b. What was the total profit made on Saturday and Monday?

c. Which made the greatest profit?

Monday and Tuesday

or

Wednesday and Thursday?

Lesson 4 – CHALLENGE

Charles is saving his money for a new TV. The one he wants costs £4999

Charles says,

"I have saved an amount which is a multiple of 100 and has 4-digits, but I need to borrow the rest from the bank."

Investigate how much he would need to borrow from the bank to afford the TV in addition to his savings. Find a range of answers.

Various answers, for example:

£1000 + £3999 = £4999

£1500 + £3499 = £4999

£2300 + £2699 = £4999;

Lesson 5 - Activity

1. 5123 + 3269 =
2. 2415 + 1722 =
3. 5482 + 3251 =
4. 5342 + 1921 =
5. 8318 + 2539 =
6. 7351 + 1275 =
7. 4290 + 1255 =
8. 3513 + 2743 =
9. 2409 + 2419 =
10. 3525 + 5165 =

Lesson 5 - CHALLENGE

What is the missing 4-digit number?

	Th	H	T	O
+	6	3	9	5
	8	9	4	9

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

Lesson 6 – Activity

Arrange the digit cards below to make two 4-digit numbers which can be added together to make a total less than 10,000.

Investigate the calculations you can make where there is only one exchange needed.

Card set 1

2	3	4	7

Card set 2

1	4	8	9

Card set 3

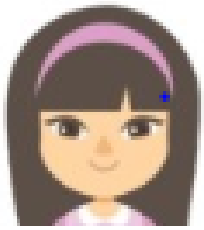
0	4	5	8

Lesson 6 – CHALLENGE

Six children are taking part in a national model building competition. They need to work in pairs to build their final model and need between 6500 and 7500 building bricks.

Which children could work together in pairs?

Jamie – 3116



Harriet – 3405

Kevin – 4125

Heather – 4173

George – 3328

Tom – 3228

Lesson 7 – Activity

Work out the additions and mark my answers.

1. 8376 + 1431 = 9807
2. 2684 + 1765 = 3349
3. 2639 + 3541 = 5180
4. 7592 + 1583 = 9175
5. 6783 + 2876 = 8659
6. 6284 + 1876 = 8160
7. 3512 + 3779 = 7281
8. 3682 + 4829 = 8401
9. 3865 + 4986 = 8851
10. 1543 + 5467 = 6000

Lesson 7 – CHALLENGE

Use <, > or = to make the statements correct.

3456 + 3789		1810 + 2436
2829 + 1901		2312 + 2418
7542 + 1858		1902 + 6496
1818 + 1999		2110 + 1707
4563 + 2225		3287 + 1231
6513 + 1719		4316 + 2380

Lesson 8 – Activity

George is climbing two mountains as part of a mountain challenge. The total height he needs to climb is between 6,250 metres and 7,950 metres. Which two mountains could he combine? How many solutions can you find?

Mountain	Height (m)
Elbrus (Russia)	5642
Mont Blanc (France)	4810
Dom (Switzerland)	4544
Olympos (Greece)	2359
Etna (Italy)	3326
Torrecilla (Spain)	1918
Polinki (Austria)	1580
Ben Nevis (Scotland)	1345
Snowdon (Wales)	1085
Scaffell Pike (England)	978

Lesson 8 – CHALLENGE – His friend, Tom, needs to climb a total height between 2,250 metres and 8,795 metres. He must climb an **even** amount of metres. Which two mountains could he combine? How many solutions can you find?

Lesson 9 – Activity

Estimate the following calculations by rounding each number to the nearest thousand, hundred, and ten.

Original Calculation	2664 + 3417 =
Rounded to nearest thousands	_____ + _____ = _____
Rounded to nearest hundreds	_____ + _____ = _____
Rounded to nearest tens	_____ + _____ = _____

Original Calculation	4287 + 2378 =
Rounded to nearest thousands	_____ + _____ = _____
Rounded to nearest hundreds	_____ + _____ = _____
Rounded to nearest tens	_____ + _____ = _____

Original Calculation	4491 + 3621 =
Rounded to nearest thousands	_____ + _____ = _____
Rounded to nearest hundreds	_____ + _____ = _____
Rounded to nearest tens	_____ + _____ = _____

Lesson 9 – CHALLENGE

Use the number cards and + to make calculations with an estimated answer of 2500

1295	1180
1002	1489
1812	1449

Lesson 10 – Activity

Farmer Wayne has 9350 grams of hay stored in his barn. Below are the amounts of hay each of his farm animals eat on average, every day.


Donkey – 1469g


Sheep – 1684g


pig – 1576g


horse –6071g


goat – 2253g

Round the amounts above to the nearest 10 to find out which Combinations of animals Farmer Wayne could feed. It might not be just two animals!

CHALLENGE – Explore rounding these amounts to a mixture of the nearest 10, 100 or 1,000. Do your combinations change?

Addition Unit – SUPER CHALLENGE

You will need to think really carefully to solve this challenge!

Every day Victoria visits two places. During the week, she visits each place at least once.

School	967 steps
Zoo	1573 steps
Grocers	2986 steps
Toy shop	3148 steps
Pizza parlour	3029 steps
Park	2777 steps
Cinema	3099 steps

Facts about her walks –

- On Monday, she walks less than 3,000 steps.
- On Tuesday, she walks more than 5,000 steps but less than 6,000.
- On Wednesday, she walks a multiple of 5 steps.
- On Thursday, she walks an even number of steps in total.
- On Friday, she walks an odd number of steps in total.

Which places could she have visited each day?

Victoria's walk possible answer:

Monday: School & Zoo = 2540 steps

Tuesday: Toy shop & Park = 5925 steps

Wednesday: Cinema & Grocers = 6085 steps

Thursday: School & Park = 3744 steps

Friday: Toy shop & Pizza Parlour = 6177 steps