Maths Home Learning – White Rose

Week 9

There will be 5 Maths lessons.

This PowerPoint contains an overview of the week, **links** to the WhiteRose Hub website for video lessons, **the answers** from the work sheets and a description of different ways to **upload** your work.

There will also be extra challenges for each day.

Maths Home Learning Tip!

If the links don't work when you click on them in the PowerPoint, copy and paste the link into your browser.

Week 9 Overview

Monday – 1s,10s,100s and 1000s

Tuesday – Add 2 4 digit numbers –no exchange

Wednesday – Add 2 4 digit numbers – one exchange

Thursday – Add 2 4 digit numbers –more than one exchange

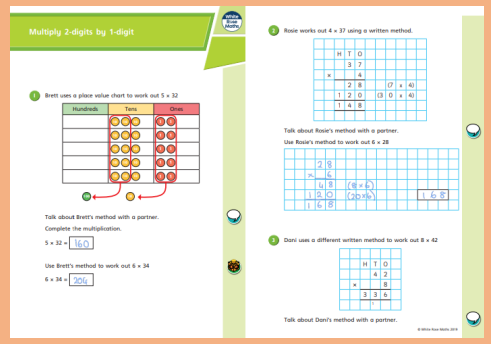
Friday - Friday Challenge

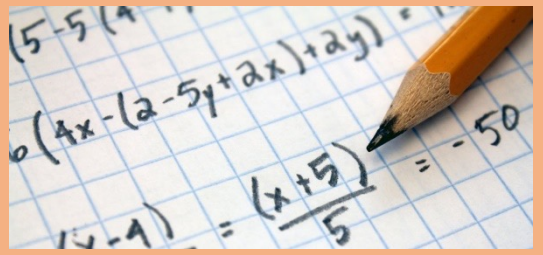
Ways to complete the activities

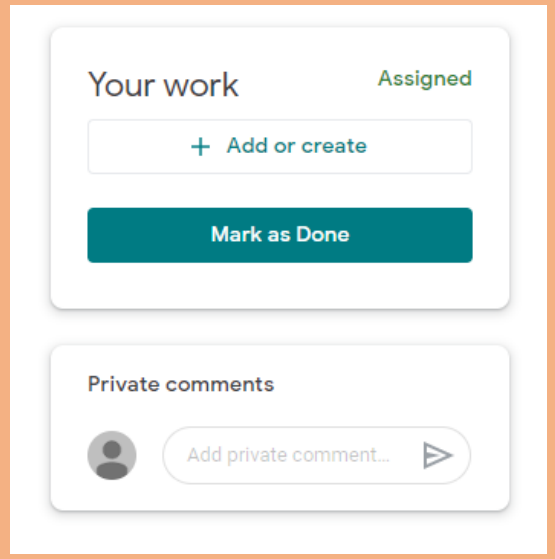
1. You can print the activity sheet, complete the work, take a photo and upload it under the Maths assignment.

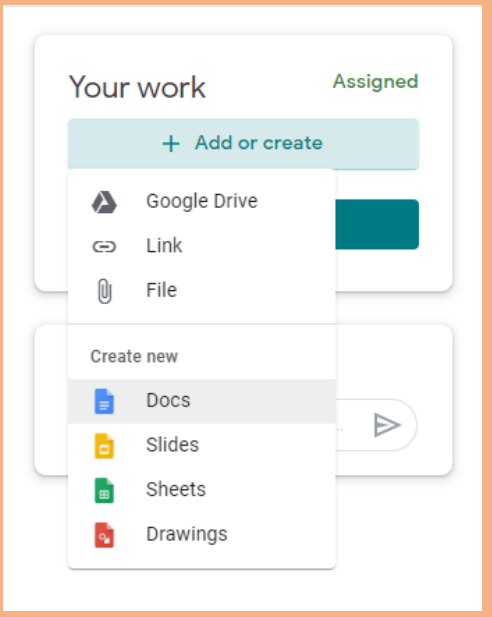
2. You can leave the activity sheet on a screen, write your answers on a piece of paper, take a photo and upload it under the Maths assignment.

3. You can create a **Google Doc**, type your answers into it and submit the Google Doc under the Maths assignment.









Monday – 1s, 10s, 100s, and 1000s

https://vimeo.com/425562383

Click the link, watch the video of the day and complete sheet 1 and sheet 2.

(You can then complete Monday **Challenge** if you want to do more maths.)

Remember to self mark or ask a sibling or parent to mark it.

Monday -sheet 1

1s, 10s, 100s, 1,000s

1 Dora makes a number on a place value chart.

Th	H	T	O
1,000 1,000 1,000	100 100 100 100	10 10	1 1 1 1 1

a) What number has Dora made? ____

b) Add 3 ones to Dora's number.
What number do you have? ____

c) Add 2 tens to Dora's number.
What number do you have now? ____

d) Subtract 2 hundreds from Dora's number.
What number do you have now? ____

e) Add 5 thousands to Dora's number.
What number do you have now? ____

2 Complete the calculations.
Use the place value chart to help you.

1,000s	100s	10s	1s
5	3	7	8

a) 5,378 + 200 = ____
b) 5,378 + 20 = ____
c) 5,378 + 2,000 = ____
d) 5,378 – 6 = ____
e) 5,378 – 60 = ____
f) 5,378 – 3,000 = ____
g) 300 + 5,378 = ____
h) 5,378 – 300 = ____

3 Complete the calculations.

a) 6,058 + 1 = ____
6,058 + 2 = ____
6,058 + 3 = ____
6,058 + 4 = ____
5 + 6,058 = ____

b) 6,058 + 20 = ____
6,058 + 30 = ____
6,058 + 40 = ____
6,058 + 50 = ____
60 + 6,058 = ____

4 Mo is going to add 100 to each number.
Circle the numbers where the 1,000s will change.

2,450 3,928 4,180 5,905 972

What do you notice?

_____

_____

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Monday -sheet 2

5 Mr Hall has £1,342 in the bank.

a) Mr Hall puts in £500 more.

How much money does he have in the bank now?

b) Then he puts in £600 more.

How much money does Mr Hall have in the bank now?

c) Then Mr Hall takes out £60

How much money does he have in the bank now?

6 Is Eva correct?

If I keep taking ten away from the number 2,562 only the tens will change.

7 Write the missing numbers.

a) 6,951 – ☐ = 6,921

6,951 – ☐ = 6,881

b) 6,421 – 700 = ☐

6,421 + 700 = ☐

c) 1,706 + ☐ = 1,766

1,706 – ☐ = 906

d) 3,500 – ☐ = 2,700

3,500 – ☐ = 3,430

Which calculations were easy to work out?

Which were more difficult to work out?

8

To add 3,812 and 1,400 together, you can add 1,000 to 3,812 and then add 400

a) Use Ron's method to work out 3,812 + 1,400

Could you have worked this out mentally?

b) Use Ron's method to complete the calculations.

1,780 + 2,200 = ☐

3,084 + 720 = ☐

591 + 2,820 = ☐

Monday Challenge

Here is a number.

Thousands	Hundreds	Tens	Ones
5	3	8	2

Add 3 thousands to the number.
Subtract 4 thousands from the answer.
Subtract 2 ones.
Add 5 tens.
What number do you have now?

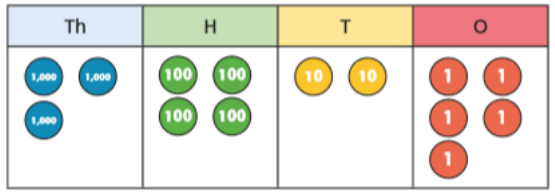
Monday Challenge Answer

4430

Monday -answers

1s, 10s, 100s, 1,000s

1 Dora makes a number on a place value chart.



a) What number has Dora made? 3,425

b) Add 3 ones to Dora's number.
What number do you have? 3,428

c) Add 2 tens to Dora's number.
What number do you have now? 3,445

d) Subtract 2 hundreds from Dora's number.
What number do you have now? 3,225

e) Add 5 thousands to Dora's number.
What number do you have now? 8,425

2 Complete the calculations.
Use the place value chart to help you.

1,000s	100s	10s	1s
5	3	7	8

a) 5,378 + 200 = 5,578
b) 5,378 + 20 = 5,398
c) 5,378 + 2,000 = 7,378
d) 5,378 – 6 = 5,372
e) 5,378 – 60 = 5,318
f) 5,378 – 3,000 = 2,378
g) 300 + 5,378 = 5,678
h) 5,378 – 300 = 5,078

3 Complete the calculations.

a) 6,058 + 1 = 6,059
6,058 + 2 = 6,060
6,058 + 3 = 6,061
6,058 + 4 = 6,062
5 + 6,058 = 6,063

b) 6,058 + 20 = 6,078
6,058 + 30 = 6,088
6,058 + 40 = 6,098
6,058 + 50 = 6,108
60 + 6,058 = 6,118

4 Mo is going to add 100 to each number.
Circle the numbers where the 1,000s will change.

2,450 (3,928) 4,180 (5,905) (972)

What do you notice?

The 1,000s change when there is a 9 in the hundreds column

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Monday -answers

5 Mr Hall has £1,342 in the bank.

a) Mr Hall puts in £500 more.

How much money does he have in the bank now?

£1,842

b) Then he puts in £600 more.

How much money does Mr Hall have in the bank now?

£2,442

c) Then Mr Hall takes out £60

How much money does he have in the bank now?

£2,382

6 Is Eva correct?

If I keep taking ten away from the number 2,562 only the tens will change.

7 Write the missing numbers.

a) 6,951 – 30 = 6,921

6,951 – 70 = 6,881

b) 6,421 – 700 = 5,721

6,421 + 700 = 7,121

c) 1,706 + 60 = 1,766

1,706 – 800 = 906

d) 3,500 – 800 = 2,700

3,500 – 70 = 3,430

Which calculations were easy to work out?

Which were more difficult to work out?

8

To add 3,812 and 1,400 together, you can add 1,000 to 3,812 and then add 400

a) Use Ron's method to work out 3,812 + 1,400

5,212

Could you have worked this out mentally?

b) Use Ron's method to complete the calculations.

1,780 + 2,200 = 3,980

3,084 + 720 = 3,804

591 + 2,820 = 3,411

Tuesday – Add 2 4 digit numbers no exchange..

https://vimeo.com/425562628

Click the link, watch the video of the day and completesheet 1 and sheet 2.

(You can then complete Tuesday challenge if you want to do more maths.)

Remember to self mark or ask a sibling or parent to mark it.

Tuesday -sheet 1

Add two 4-digit numbers – no exchange

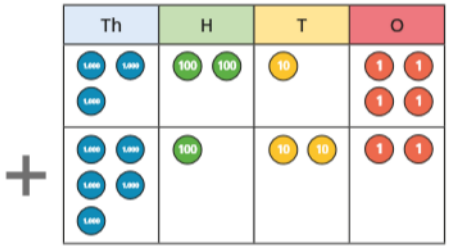
1 Calculate 314 + 522

Use the place value chart to help you.

314 + 522 = ☐

2 a) Calculate 3,214 + 5,122

Use the place value chart to help you.



3,214 + 5,122 = ☐

b) Now calculate 3,214 + 122 in the same way.

3,214 + 122 = ☐

c) What do you notice about your answers to part a) and part b)?

3 Complete the calculations.

a) 4,122 + 2,605 = ☐

b) 3,709 + 4,160 = ☐

c) 247 + 1,032 = ☐

d) 3,007 + 560 = ☐

4 Alex is calculating 5,702 + 125

		Th	H	T	O	
		5	7	0	2	
	+	1	2	5		
		6	9	5	2	

Do you agree with Alex? _____

Explain your answer.

_____

_____

Complete the calculation.

5,702 + 125 = ☐

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Tuesday -sheet 2

5 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?

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.

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

8 Complete the calculation.

2,415 + 5,142 = ☐

What do you notice about the numbers in the question?

How does this affect the answer?

Think of some more calculations like this.

Try them out with a partner.

Tuesday Challenge

Work out the missing numbers.

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

7

Tuesday Challenge Answers

Work out the missing numbers.

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

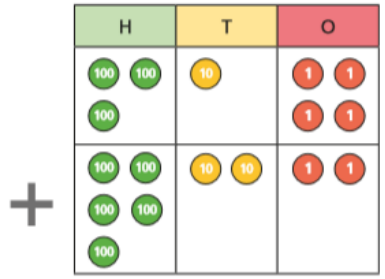
7

Tuesday -answers

Add two 4-digit numbers – no exchange

1 Calculate 314 + 522

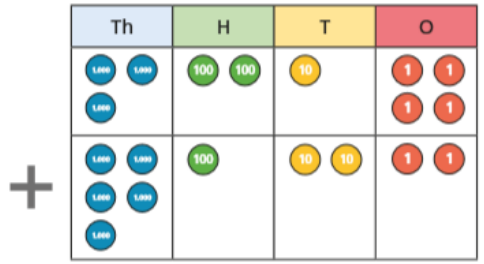
Use the place value chart to help you.



314 + 522 = 836

2 a) Calculate 3,214 + 5,122

Use the place value chart to help you.



3,214 + 5,122 = 8,336

b) Now calculate 3,214 + 122 in the same way.

3,214 + 122 = 3,336

c) What do you notice about your answers to part a) and part b)?

3 Complete the calculations.

a) 4,122 + 2,605 = 6,727

b) 3,709 + 4,160 = 7,869

c) 247 + 1,032 = 1,279

d) 3,007 + 560 = 3,567

4 Alex is calculating 5,702 + 125

		Th	H	T	O	
		5	7	0	2	
	+	1	2	5		
		6	9	5	2	

Do you agree with Alex? No

Explain your answer.

He hasn't lined the numbers up correctly.

Complete the calculation.

5,702 + 125 = 5,827

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Tuesday -answers

5 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?

2,552 km

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?

2,876

7 Fill in the missing digits.

	Th	H	T	O
	3	3	2	0
+	5	4	7	6
	8	7	9	6

8 Complete the calculation.

2,415 + 5,142 = 7,557

What do you notice about the numbers in the question?

How does this affect the answer?

One number is the reverse of the other so the answer is the same in reverse order.

Think of some more calculations like this.

Try them out with a partner.

Wednesday – Adding 2 4 digit numbers one exchange.

https://vimeo.com/425562776

Click the link, watch the video of the day and complete sheet 1 and sheet 2.

(You can then complete the **Wednesday challenge** if you want to do more maths.)

Remember to self mark or ask a sibling or parent to mark it.

Wednesday sheet 1

Add two 4-digit numbers – one exchange

White Rose Maths

1 Complete the calculations.

Use the place value charts to help you.

a) 3,117 + 2,542 = ☐

	Th	H	T	O
	1,000 1,000 1,000	100	10	1 1 1 1 1
+	1,000 1,000	100 100 100 100 100	10 10 10 10	1 1

b) 3,117 + 2,544 = ☐

	Th	H	T	O
	1,000 1,000 1,000	100	10	1 1 1 1 1
+	1,000 1,000	100 100 100 100 100	10 10 10 10	1 1 1 1

c) What do you notice about the calculations in part a) and part b)?

Which did you find easier and why?

d) What happens when you have more than 10 counters in one column?

_____

_____

2 Complete the calculations.

a) 4,365 + 2,617 = ☐

b) 1,907 + 5,068 = ☐

c) 6,792 + 163 = ☐

d) 3,247 + 1,930 = ☐

3 Complete the calculations.

a)

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

b)

	Th	H	T	O
	7	2	6	1
+	1	0	2	9

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Wednesday sheet 2

c)

	Th	H	T	O
		7	0	3
+	2	5	8	0

d)

	Th	H	T	O
	3	5	0	8
+	2	7	3	1

4 Four children have calculated 4,635 + 183

Rosie's method

	Th	H	T	O
	4	6	3	5
+		1	8	3
	4	7	11	8

4,635 + 183 = 47,118

Jack's method

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

4,635 + 183 = 4,718

Alex's method

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

4,635 + 183 = 4,818

Teddy's method

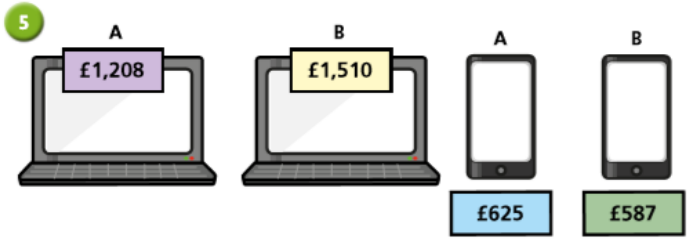
	Th	H	T	O
	4	6	3	5
+	1	8	3	
	6	4	6	5
	1			

4,635 + 183 = 6,465

Whose method is correct? _____

Talk about the mistakes the other children have made.

5



Mr Robson has £2,100 to spend on a mobile phone and a laptop.

Which combinations of laptops and phones can he afford to buy?

6 Fill in the missing digits.

a)

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

b)

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

Wednesday Challenge

Annie, Mo and Alex are working out the solution to the calculation 6,374 + 2,823

Annie's Strategy

6,000 + 2,000 = 8,000
300 + 800 = 110
70 + 20 = 90
4 + 3 = 7
8,000 + 110 + 90 + 7 = 8,207

Mo's Strategy

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

Alex's Strategy

	6	3	7	4
+	2	8	2	3
				7
			9	0
	1	1	0	0
	8	0	0	0
	9	1	9	7

Who is correct?

Wednesday Challenge Answer

Alex is correct with 9,197

Annie has miscalculated 300 + 800, forgetting to exchange a ten hundreds to make a thousand (showing 11 tens instead of 11 hundreds).

Mo has forgotten both to show and to add on the exchanged thousand.

Wednesday -answers

Add two 4-digit numbers – one exchange

White Rose Maths

1 Complete the calculations.

Use the place value charts to help you.

a) 3,117 + 2,542 = 5,659

	Th	H	T	O
	1,000 1,000 1,000	100	10	1 1 1 1 1
+	1,000 1,000	100 100 100 100 100	10 10 10 10	1 1

b) 3,117 + 2,544 = 5,661

	Th	H	T	O
	1,000 1,000 1,000	100	10	1 1 1 1 1
+	1,000 1,000	100 100 100 100 100	10 10 10 10	1 1

c) What do you notice about the calculations in part a) and part b)?

Which did you find easier and why?

d) What happens when you have more than 10 counters in one column?

You have to make an exchange

2 Complete the calculations.

a) 4,365 + 2,617 = 6,982

b) 1,907 + 5,068 = 6,975

c) 6,792 + 163 = 6,955

d) 3,247 + 1,930 = 5,177

3 Complete the calculations.

a)

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

b)

	Th	H	T	O
	7	2	6	1
+	1	0	2	9
	8	2	9	0
			1	

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Wednesday -answers

c)

	Th	H	T	O
		7	0	3
+	2	5	8	0
	3	2	8	3
	1			

d)

	Th	H	T	O
	3	5	0	8
+	2	7	3	1
	6	2	3	9
	1			

4 Four children have calculated 4,635 + 183

Rosie's method

	Th	H	T	O
	4	6	3	5
+		1	8	3
	4	7	11	8

4,635 + 183 = 47,118

Jack's method

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

4,635 + 183 = 4,718

Alex's method

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

4,635 + 183 = 4,818

Teddy's method

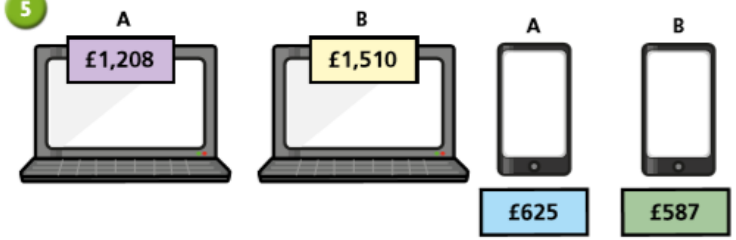
	Th	H	T	O
	4	6	3	5
+	1	8	3	
	6	4	6	5
	1			

4,635 + 183 = 6,465

Whose method is correct? Alex

Talk about the mistakes the other children have made.

5



Mr Robson has £2,100 to spend on a mobile phone and a laptop.

Which combinations of laptops and phones can he afford to buy?

Mr Robson can buy laptop A and phone A, laptop A and phone B or laptop B and phone B.

6 Fill in the missing digits.

a)

	Th	H	T	O
	3	3	2	5
+	5	4	6	6
	8	7	9	1
			1	

b)

	Th	H	T	O
	4	9	7	0
+	3	8	2	1
	8	7	9	1
	1			

Thursday – Add 2 4 digit numbers with more than one exchange.

https://vimeo.com/425563010

Click the link, watch the video of the day and complete sheet 1 and sheet 2.

(You can then complete Thursday challenge, if you want to do more maths.)

Remember to self mark or ask a sibling or parent to mark it.

Thursday –sheet 1

Add two 4-digit numbers – more than one exchange

White Rose Maths

1 Complete the calculation.

Th	H	T	O
1,000 1,000	100	10 10 10 10 10	1 1 1 1
+ 1,000 1,000 1,000	100 100 100 100	10 10 10 10	1 1 1 1

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

2 Who has got each question correct? Tick your answer.

a) Nijah

	H	T	O
	4	4	5
+	3	4	8
	78	1	3

Scott

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

b) Nijah

	Th	H	T	O
	4	8	2	6
+	1	7	8	
	6	6	0	6
	1	1		

Scott

	Th	H	T	O
	4	8	2	6
+		1	7	8
	5	0	0	4
	1	1	1	

What mistake has the other person made in each calculation?

Talk about it with a partner.

3 Complete the additions.

a)

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

c) 3,784 + 2,526

b)

	Th	H	T	O
	6	0	7	5
+		9	4	8

d) 79 + 654 + 1,312

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Thursday -sheet 2

4 Write each calculation in the correct column.

712 + 394	1,312 + 2,527	2,350 + 3,760
1,995 + 712	3,044 + 2,372	17 + 953

No exchange needed	1 exchange	More than one exchange

Write one more calculation of your own in each column.

5 Dexter is playing a computer game.

The table shows the number of points he gets in each round.

Round	1	2	3
Number of points	3,550	2,175	1,895

a) How many points does Dexter have at the end of Round 2?

b) He needs 8,000 by the end of Round 3 to win the game.

Does Dexter win the game? _____

Show your working.

6 Work out the missing digits.

a)

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

b)

	Th	H	T	O
			8	1
+		9	8	
	4	2		8

c) Find two possible answers.

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

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

How did you work this out? Talk about it with a partner.

Are there any more answers?

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Thursday Challenge

Complete:

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

Mo says that there is more than one possible answer for the missing numbers in the hundreds column.
Is he correct?
Explain your answer.

Thursday Challenge Answer

The solution shows the missing numbers for the ones, tens and thousands columns.

6,__38 + 2,__87

Mo is correct. The missing numbers in the hundreds column must total 1,200 (the additional 100 has been exchanged).

Possible answers include:
6,338 + 2,987
6,438 + 2,887

Thursday -answers

Add two 4-digit numbers – more than one exchange

1 Complete the calculation.

Th	H	T	O
1,000 1,000	100	10 10 10 10 10	1 1 1 1 1
+ 1,000 1,000 1,000	100 100 100	10 10 10 10 10	1 1 1 1 1

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

2 Who has got each question correct? Tick your answer.

a) Nijah

	H	T	O
	4	4	5
+	3	4	8
	78	1	3

Scott ✓

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

b) Nijah

	Th	H	T	O
	4	8	2	6
+	1	7	8	
	6	6	0	6
	1	1		

Scott ✓

	Th	H	T	O
	4	8	2	6
+		1	7	8
	5	0	0	4
	1	1	1	

What mistake has the other person made in each calculation?

Talk about it with a partner.

3 Complete the additions.

a)

	Th	H	T	O
	4	7	1	2
+	3	4	9	2
	8	2	0	4
	1	1		

b)

	Th	H	T	O
	6	0	7	5
+		9	4	8
	7	0	2	3
	1	1	1	

c) 3,784 + 2,526

	3	7	8	4
+	2	5	2	6
	6	3	1	0
	1	1	1	

d) 79 + 654 + 1,312

			7	9
		6	5	4
+	1	3	1	2
	2	0	4	5
	1	1	1	

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Thursday -answers

4 Write each calculation in the correct column.

712 + 394	1,312 + 2,527	2,350 + 3,760
1,995 + 712	3,044 + 2,372	17 + 953

No exchange needed	1 exchange	More than one exchange
1,312 + 2,527	3,044 + 2,372 17 + 953	712 + 394 2,350 + 3,760 1,995 + 712

Write one more calculation of your own in each column.

5 Dexter is playing a computer game.

The table shows the number of points he gets in each round.

Round	1	2	3
Number of points	3,550	2,175	1,895

a) How many points does Dexter have at the end of Round 2?

5,725

b) He needs 8,000 by the end of Round 3 to win the game.

Does Dexter win the game? No

Show your working.

	5	7	2	5	He was 380 points short.
+	1	8	9	5	
	7	6	2	0	

6 Work out the missing digits.

a)

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

b)

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

c) Find two possible answers.

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

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

How did you work this out? Talk about it with a partner.

Are there any more answers?

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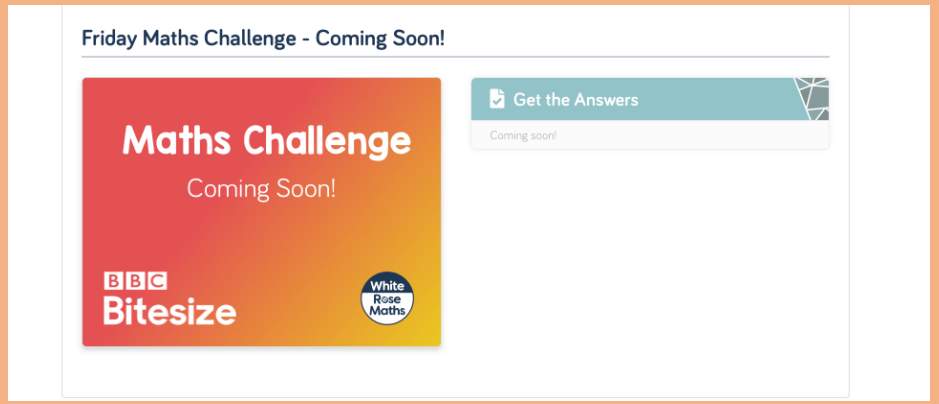
Friday – Reasoning challenges

https://whiterosemaths.com/homelearning/year-4/

Have a go at completing the White Rose Maths Challenge

The video should be under **Summer Term – Week 7 (w/c 8th June)**



Friday Challenge - Extra

Jack says,

When I add two numbers together I will only ever make up to one exchange in each column.

Do you agree?
Explain your reasoning.

Friday Challenge Answer

Jack says,

When I add two numbers together I will only ever make up to one exchange in each column.

Do you agree?
Explain your reasoning.

Jack is correct. When adding any two numbers together, the maximum value in any given column will be 18 (e.g. 18 ones, 18 tens, 18 hundreds). This means that only one exchange can occur in each place value column.
Children may explore what happens when more than two numbers are added together.