Year 4 Maths Distance Teaching and Learning

Week beginning: 04.05.20

<table>
<tr><th colspan="3">Lesson 1</th></tr>
<tr><td>Learning Intention:

WALT: use estimation to support calculation</td><td>Key Vocabulary:

Estimate – to roughly calculate or judge the value</td><td>What you will need:

A computer, tablet or phone for the starter
Maths book
Pencil and ruler
Video: Year 4 Maths - Week 3 - lesson 1</td></tr>
<tr><th colspan="3">Starter</th></tr>
<tr><td colspan="3">Log onto Times Tables Rock Stars and complete a sound check.</td></tr>
<tr><th colspan="3">Main Teaching</th></tr>
<tr><td colspan="3">Today's lesson will be looking at using our rounding skills from the previous session to support your calculation skills. This week's sessions will be focusing on addition skills and using a range of mental methods to help us solve calculations. Estimating makes calculating mentally easier as less digits are involved when adding. This reduces the chance of error. It is also useful to know an approximate answer before you try to work out an exact answer because then you will be able to judge whether your exact answer is within the right area.

Skills you will need to remember to help you through this session:

Round down:

1, 2, 3 and 4

Round up:

5, 6, 7, 8 and 9

When rounding to the nearest ten:
- Find the multiple of ten either side of your number
- The ones are your significant column, which help you know whether to round up or down.

When rounding to the nearest hundred:
- Find the multiple of a hundred either side of your number
- The tens are your significant column, which help you know whether to round up or down.

When rounding to the nearest thousand:
- Find the multiple of a thousand either side of your number
- The hundreds are your significant column, which help you know whether to round up or down.

Remember to use the approximate symbol when showing your answer (≈).</td></tr>
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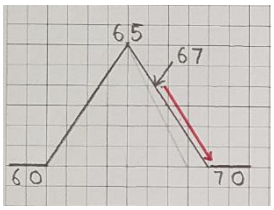
Example 1
Estimate an answer to this calculation 67 + 182 =

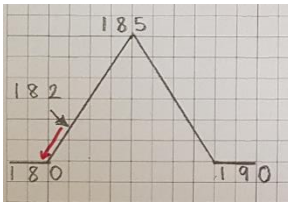
Rounding to the nearest ten would be more appropriate and accurate as there is one number which only has tens and ones. It also keeps the number as close to its true value as possible.

Step 1 – Round number one to the nearest ten.



67 ≈ 70

Step 2 – Round number two to the nearest ten.



182 ≈ 180

Step 3 – Complete the calculation with both rounded amounts to find the approximate total.

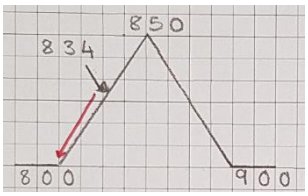
67 + 182 ≈ 70 + 180 SO 70 + 180 = 250

67 + 182 ≈ 250 when rounded to the nearest ten.

Example 2:
Find an approximate answer to 834 + 4,852.

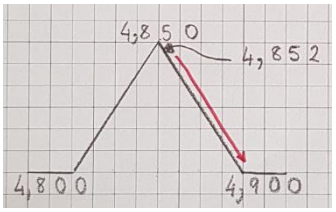
Although rounding to the nearest ten would be most accurate, it would still leave us with a lot of digits to calculate with mentally. Therefore, rounding to the nearest hundred would be most efficient here.

Step 1 – Round number one to the nearest hundred.



834 ≈ 800

Step 2 – Round number two to the nearest hundred.



4,852 ≈ 4,900

Step 3 – Complete the calculation with both rounded amounts to find the approximate total.

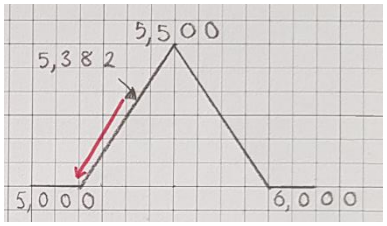
834 + 4,852 ≈ 800 + 4,900 SO 800 + 4,900 = 5,700

834 + 4,852 ≈ 5,700 when rounded to the nearest hundred.

Example 3
Find an approximate answer to 5,382 + 2,625

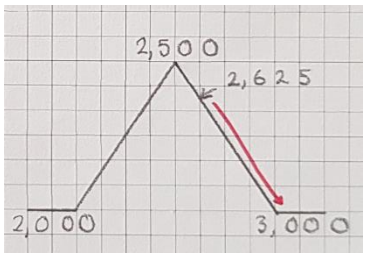
Both these numbers are four-digit numbers. Although rounding to the nearest ten or hundred would be more accurate, it would still leave us with a lot of digits to calculate mentally. Therefore, rounding to the nearest thousand would be most efficient here.

Step 1 – Round number one to the nearest thousand.



5,382 ≈ 5,000

Step 2 – Round number two to the nearest thousand.



2,625 ≈ 3,000

Step 3 – Complete the calculation with both rounded amounts to find the approximate total.

5,382 + 2,625 ≈ 5,000 + 3,000 SO 5,000 + 3,000 = 8,000

5,382 + 2,625 ≈ 8,000 when rounded to the nearest thousand.

SOMETHING TO REMEMBER – Rounding is approximate and can sometimes give us an answer that is not as close to the exact as we'd hope. This is because digits liked 4,5 and 6 are still considered as not being that close to the multiple you are rounding to, especially when using the hundreds to round to the nearest thousand! Rounding to the nearest ten will always allow a closer answer as you are keeping the original number as close as possible to its true value.

This may help you with your Challenge X answers!

Independent Tasks:

Please complete 1 or 2 challenges. If you are finding a challenge too tricky or too easy after 3 questions, you should switch challenges. After you have completed your challenge, check your answers against the mark scheme. If you got an answer wrong, look carefully and identify where you made a mistake.

Challenge 1

Round each of the below questions to the suggested multiple to estimate an answer. Don't forget to follow the steps in the examples and show your final answer as:

original number 1 + *original number 2* ≈ _____ when rounded to the nearest _____.

Round to the nearest ten

1) 24 + 62

2) 73 + 18

3) 31 + 89

4) 44 + 35

Round to the nearest hundred

5) 564 + 182

6) 919 + 120

7) 325 + 576

Challenge 2

Round each of the below questions to the suggested multiple to estimate an answer. Don't forget to follow the steps in the examples and show your final answer as:

original number 1 + *original number 2* ≈ _____ when rounded to the nearest _____.

Round to the nearest ten

1) 465 + 331

2) 856 + 129

Round to the nearest hundred

3) 621 + 437

4) 7,685 + 219

Round to the nearest thousand

5) 3,654 + 2,253

6) 5,962 + 2,542

7) 4,804 + 1,389

Challenge 3

Round each of the below questions to the suggested multiple to estimate an answer. Don't forget to follow the steps in the examples and show your final answer as:

original number 1 + *original number 2* ≈ _____ when rounded to the nearest _____.

Round to the nearest ten

1) 7,293 + 1,761

2) 3,846 + 478

Round to the nearest hundred

3) 967 + 6,432

4) 5,035 + 2,195

5) 4,526 + 1, 952

Round to the nearest thousand

6) 8, 984 + 1,067

7) 2,965 + 4,555

Challenge X

1) Sarah has £70. She wants to buy some trainers for £39 and some tracksuit bottoms for £34. Use rounding to check she has enough money.

2) Now, work out the exact amount of money Sarah needs.

3) Using question 1 and 2 as evidence, explain why, in the context of money, we need to be careful with rounding to get an approximate answer.

Review

Find an approximate answer to 58 + 123 + 511

Mark Scheme – Lesson 1

Independent Tasks
Challenge 1
1) 24 + 62 ≈ 80 when rounded to the nearest ten 2) 73 + 18 ≈ 90 when rounded to the nearest ten 3) 31 + 89 ≈ 120 when rounded to the nearest ten 4) 44 + 35 ≈ 80 when rounded to the nearest ten 5) 564 + 182 ≈ 800 when rounded to the nearest hundred 6) 919 + 120 ≈ 1,000 when rounded to the nearest hundred 7) 325 + 576 ≈ 900 when rounded to the nearest hundred
Challenge 2
1) 465 + 331 ≈ 800 when rounded to the nearest ten 2) 856 + 129 ≈ 990 when rounded to the nearest ten 3) 621 + 437 ≈ 1,000 when rounded to the nearest hundred 4) 7,685 + 219 ≈ 7,900 when rounded to the nearest hundred 5) 3,654 + 2,253 ≈ 6,000 when rounded to the nearest thousand 6) 5,962 + 2,542 ≈ 9,000 when rounded to the nearest thousand 7) 4,804 + 1,389 ≈ 6,000 when rounded to the nearest thousand
Challenge 3
1) 7,293 + 1,761 ≈ 9,050 when rounded to the nearest ten 2) 3,846 + 478 ≈ 4,330 when rounded to the nearest ten 3) 967 + 6,432 ≈ 7,400 when rounded to the nearest hundred 4) 5,035 + 2,195 ≈ 7,200 when rounded to the nearest hundred 5) 4,526 + 1, 952 ≈ 6,500 when rounded to the nearest hundred 6) 8, 984 + 1,067 ≈ 10,000 when rounded to the nearest thousand 7) 2,965 + 4,555 ≈ 8,000 when rounded to the nearest thousand

Challenge X

1) Sarah has £70. She wants to buy some trainers for £39 and some tracksuit bottoms for £34. Use rounding to check she has enough money.

   £39 ≈ £40
   £34 ≈ £30

   £40 + £30 = £70

   £39 + £34 ≈ £70 when rounded to the nearest ten

   Sarah will have enough money.

2) Now, work out the exact amount of money Sarah needs.

   £39 + £34 = £73

   Sarah needs £73.

3) Using question 1 and 2 as evidence, explain why we need to be careful with rounding to get an approximate answer in the context of money.

   An answer similar to:

   When using money, rounding down can get rid of money you need. If the total rounded up amount is less than the total rounded down amount then your estimate will not be big enough to cover the cost. Rounding all numbers up when estimating with money will ensure you have enough.

Review

Find an approximate answer to 58 + 123 + 511.

Here, rounding each number to the nearest ten would be most effective.

58 ≈ 60
123 ≈ 120
511 ≈ 510

60 + 120 + 510 = 690

58 + 123 + 511 ≈ 690 when rounded to the nearest ten.

Lesson 2		
Learning Intention: WALT 'think 100' and 'think 1000' to add numbers	Key Vocabulary:	What you will need: A computer, tablet or phone for the starter Maths book Pencil and ruler Video: Year 4 Maths - Week 3 - lesson 2

Starter

Log into Times Tables Rock Stars and complete a garage session.

Main Teaching

We are going to be using our knowledge of place value and number bonds, to help us regroup numbers effectively for easier addition. The key facts below will help you with today's lesson.

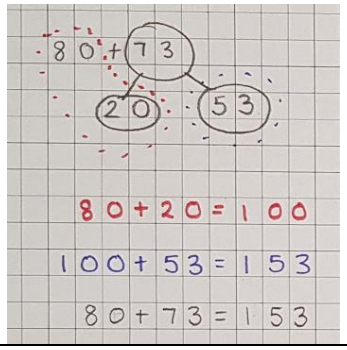
Number bonds to 10	Number bonds to 100	Number bonds to 1000
1 + 9 2 + 8 3 + 7 4 + 6 5 + 5	10 + 90 20 + 80 30 + 70 40 + 60 50 + 50	100 + 900 200 + 800 300 + 700 400 + 600 500 + 500

The number bonds above are key to making sure your choices when regrouping are effective. There are many other ways to make 100 and 1000 (such as 35 + 65 and 234 + 766, respectively) however, these still rely on your knowledge of number bonds to ten as a base.

Example 1:

How could we use regrouping to help to calculate 80 + 73?

First, look for the useful number that would be in a number bond. As we know our number bonds to 100, we know 80 + 20 = 100. Using this knowledge, we would want to regroup the 73 so that we could get the 20 we need. We can then complete the calculation.



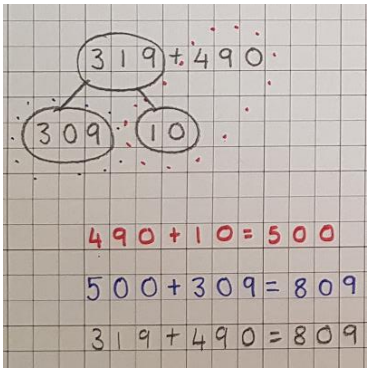
80 + 20 = 100
100 + 53 = 153

80 + 73 = 153

Example 2:

How could we use regrouping to help to calculate 319 + 490?

First, look for the useful number that would be in a number bond. As we know our number bonds to 100, we know 90 + 10 = 100. Using this knowledge, we would want to regroup the 319 so that we could get the 10 we need. We can then complete the calculation.



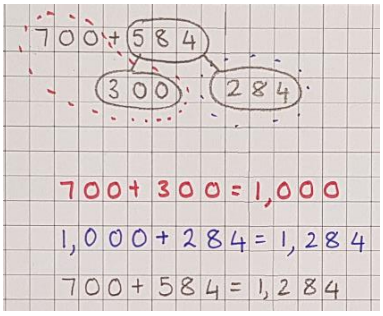
490 + 10 = 500
500 + 309 = 809

319 + 490 = 809

Example 3:

How could we use regrouping to help to calculate 700 + 584?

First, look for the useful number that would be in a number bond. As we know our number bonds to 1,000, we know 700 + 300 = 1,000. Using this knowledge, we would want to regroup the 584 so that we could get the 300 we need. We can then complete the calculation.



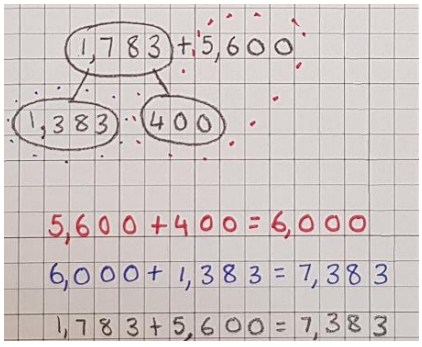
700 + 300 = 1,000
1,000 + 284 = 1,284

700 + 584 = 1,284

Example 4:

How could we use regrouping to help to calculate 1,783 + 5,600?

First, look for the useful number that would be in a number bond. As we know our number bonds to 1,000, we know 600 + 400 = 1,000. Using this knowledge, we would want to regroup the 1,783 so that we could get the 400 we need. We can then complete the calculation.



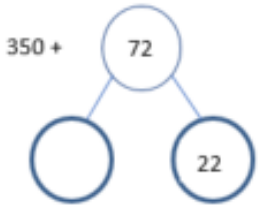
5,600 + 400 = 6,000
6,000 + 1,383 = 7,383

1,783 + 5,600 = 7,383

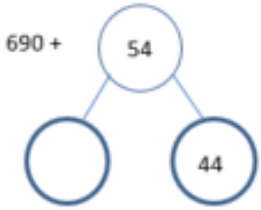
Independent Tasks
Please complete 1 or 2 challenges. If you are finding a challenge too tricky or too easy after 3 questions, you should switch challenges. After you have completed your challenge, check your answers against the mark scheme. If you got an answer wrong, look carefully and identify where you made a mistake.
Challenge 1
Copy out and complete the whole-part-whole diagrams to help you regroup to find the answers to the calculations. Remember to refer back to your number bonds to help you!

Think 100:

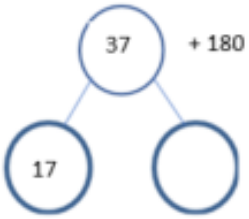
1) 350 + 72



2) 690 + 54

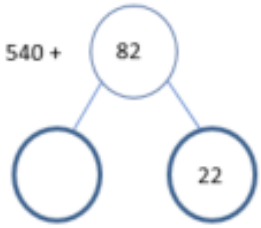


3) 37 + 180

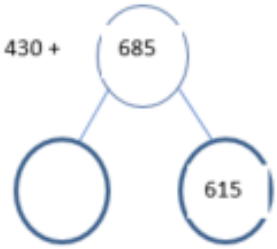


Think 100:

4) 540 + 82

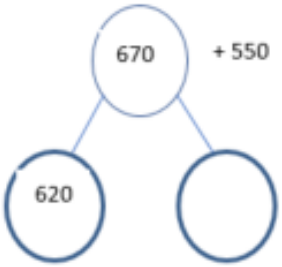


5) 430 + 685



Think 100

6) 670 + 550



Challenge 2

Use think 100 to regroup a number from the calculation to help you find the answer.

1) 350 + 72
2) 690 + 54
3) 1,637 + 180

Use think 1,000 to regroup a number from the calculation to help you find the answer.

4) 692 + 700
5) 427 + 800
6) 1,500 + 1,756

Challenge 3

Use think 100 to regroup a number from the calculation to help you find the answer.

1) 780 + 568
2) 987 + 130
3) 1,435 + 2,180

Use think 1,000 to regroup a number from the calculation to help you find the answer.

4) 4,679 + 1,600
5) 2,427 + 4,700
6) 3,500 + 1,856

Challenge X

6,600 + _____ = 7,000 + 180

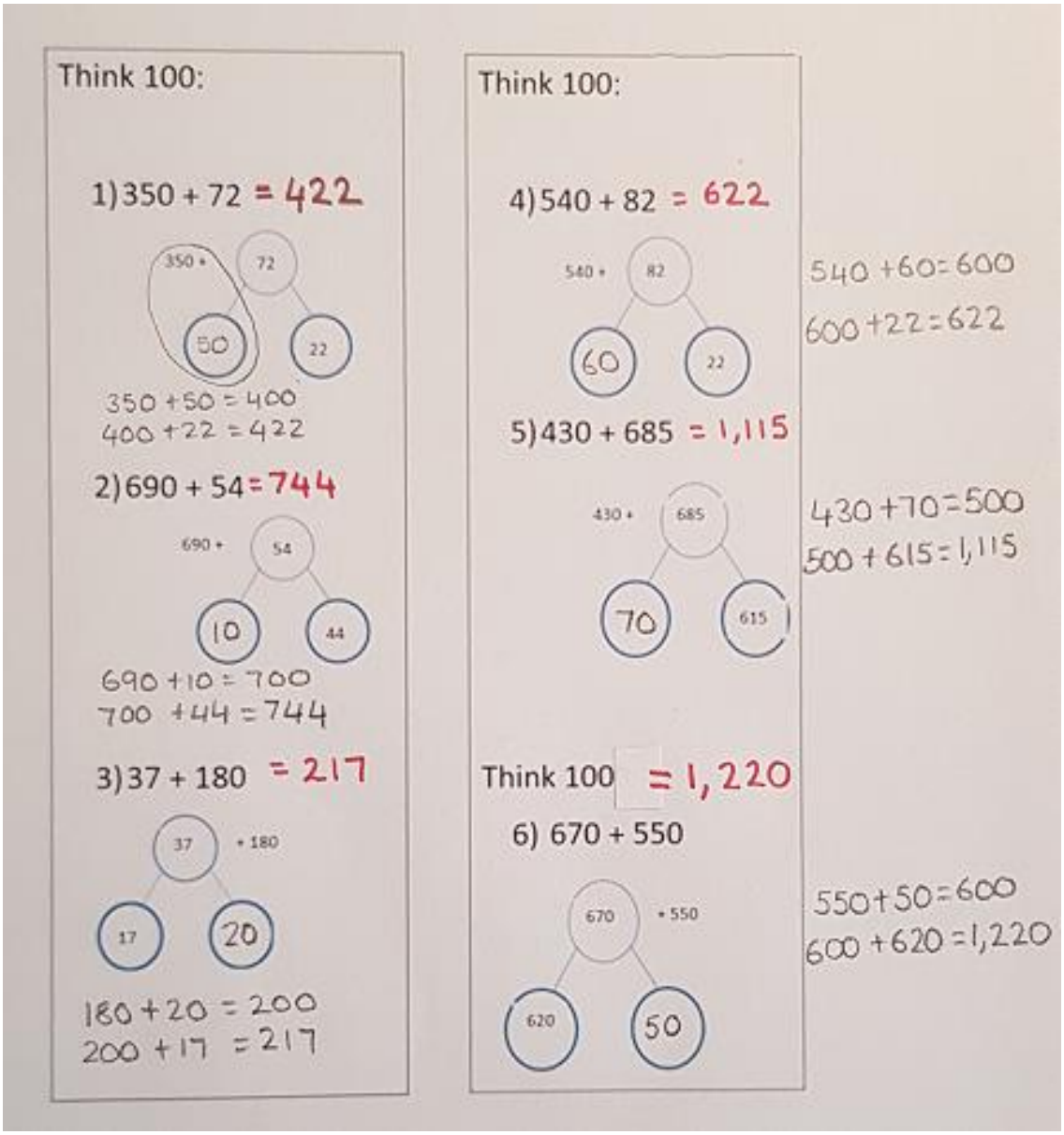
460 + _____ = 4,000 + 260

Review

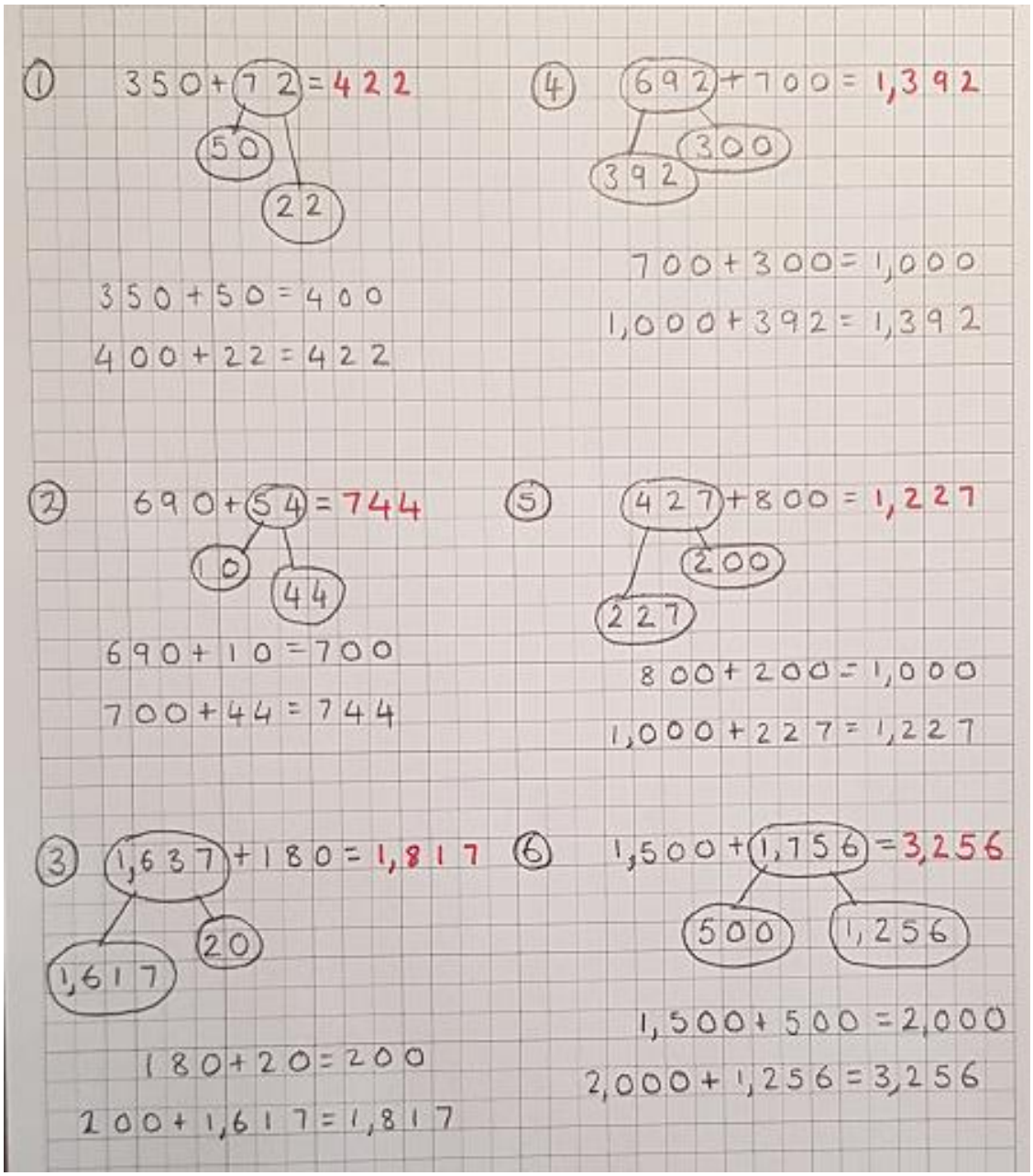
James spent 3,568 minutes doing his Maths homework throughout Year 4. He spent 4,700 minutes on his English. How many minutes did he spend in total on his homework?

Mark Scheme – Lesson 2

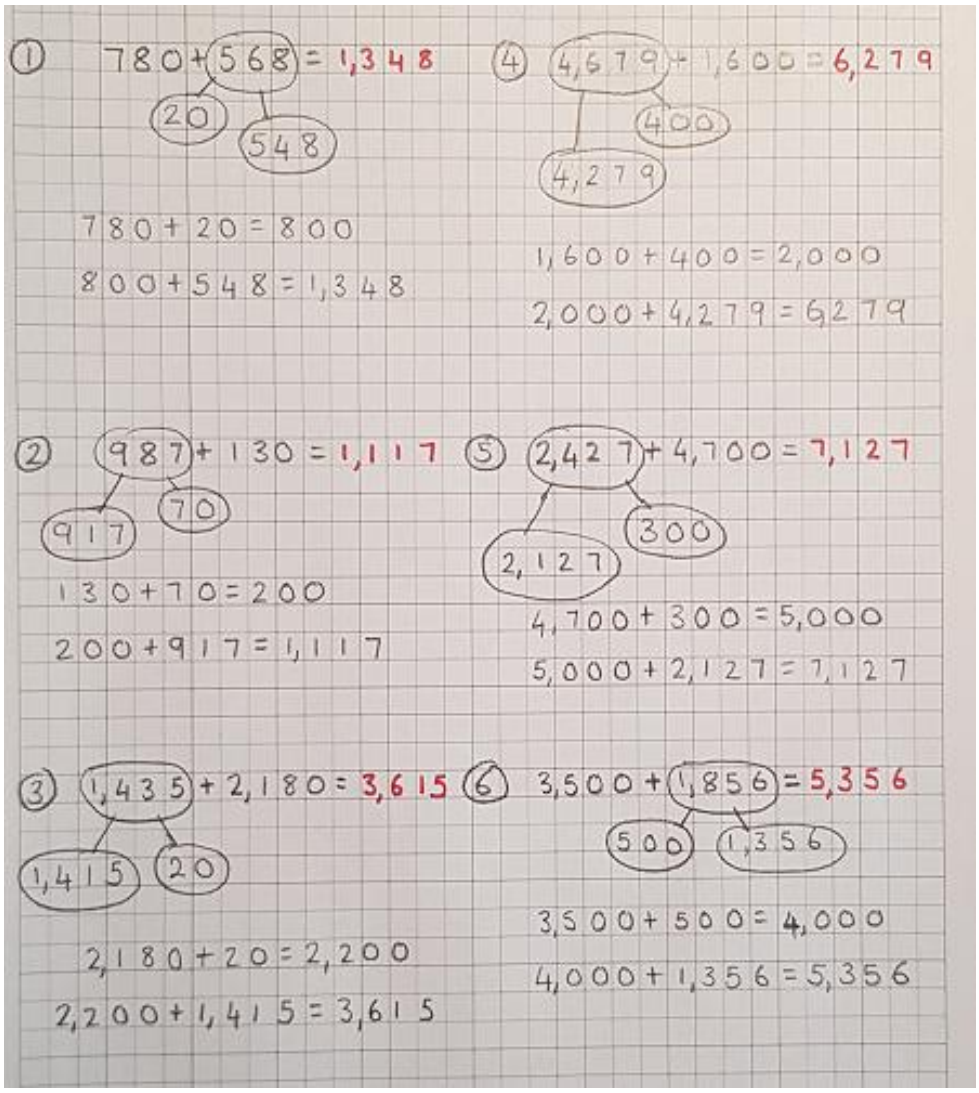
Independent Tasks
Challenge 1



Challenge 2


① 350 + 72 = 422
50
22
350 + 50 = 400
400 + 22 = 422
② 690 + 54 = 744
10
44
690 + 10 = 700
700 + 44 = 744
③ 1,637 + 180 = 1,817
20
1,617
180 + 20 = 200
200 + 1,617 = 1,817
④ 692 + 700 = 1,392
300
392
700 + 300 = 1,000
1,000 + 392 = 1,392
⑤ 427 + 800 = 1,227
200
227
800 + 200 = 1,000
1,000 + 227 = 1,227
⑥ 1,500 + 1,756 = 3,256
500
1,256
1,500 + 500 = 2,000
2,000 + 1,256 = 3,256

Challenge 3



Challenge X

6,600 + 580 = 7,000 + 180

460 + 3,800 = 4,000 + 260

Review

James spent 3,568 minutes doing his Maths homework throughout Year 4. He spent 4,700 minutes on his English. How many minutes did he spend in total on his homework?

3,568 + 4,700 = 8,268

James spent a total on 8,268 minutes on his homework.

Lesson 3		
Learning Intention: WALT use equal sum as a mental strategy	Key Vocabulary: Equal – all parts are the same in value or size Sum – the amount resulting from the addition of numbers	What you will need: A computer, tablet or phone for the starter Maths book Pencil and ruler Video: Year 4 Maths - Week 3 - lesson 3

Starter

Log into Times Tables Rock Stars. If a gig is available, have a go. If not, try a sound check.

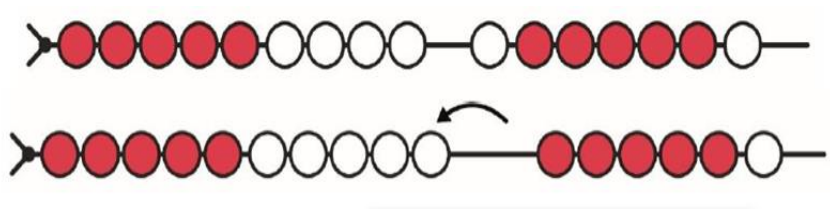
Main Teaching

Today, we are going to be learning to use a strategy called equal sum. This strategy cannot be used efficiently with all calculations but is very useful for adapting some calculations to make them easier. We will look at deciding **when** to use equal sum in another lesson. This method requires you to understand both the words 'equal' and 'sum' (have a look in the key vocabulary section).

This method allows us to change numbers in a sum in order to make the calculation easier to work out. When changing the numbers, we must make sure that whatever action we do to one number (for example adding to it) it must then be reflected in the other number (subtracting the added amount from the first number from it). This will ensure that the total amount added will remain the same.

This will make more sense throughout the following examples:

Example 1:



The first bead string is showing an original calculation of 9 + 6, which could been seen as tricky because you would have to create a new ten and have some ones left. The second bead string is showing an easier calculation to the same answer, after the equal sum strategy has been applied. It is showing 10 + 6.

The idea of equal sum is to change the numbers in the calculation to easier numbers to work with whilst ensuring you are still totalling the same amount.

In 9 + 7, we need a total of 7 to be added. In 10 + 6, it may look like we are only adding 6 but we have already added 1 to the 9 to make 10 therefore, a total of 7 has been added but we have made the calculation easier whilst doing so.

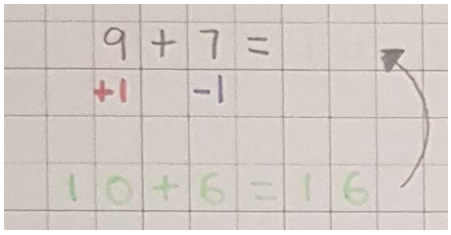
Let's look at the steps we would take when applying the equal sum strategy.

Step 1 – look at the numbers and decide how you want to make the numbers easier. Then, make the change you decided on. In this case, adding 1 to the 9 would make 10, which is an easier number to work with.

Step 2 – work out how much the remainder to add is by taking away what you added to the other number (in this example, 1) from the second number so that the amount being added still remains equal.

Step 3 – write your new calculation out and find your total.

You would set your work out like this:



Example 2:
Use equal sum to find the answer to 38 + 6.

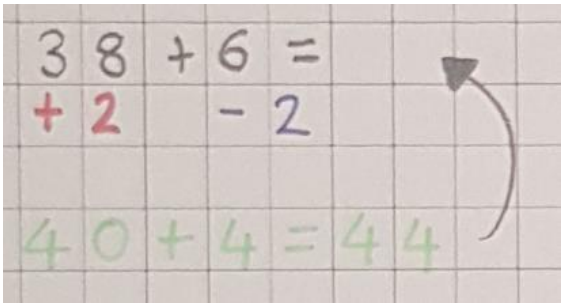
Remember, we want to change the numbers so that they become easier to work with. Multiples of 10, 100 and 1000 and easier to add mentally.

Follow the same steps as above:
Step 1 – look at the numbers and decide how you want to make the numbers easier. Then, make the change you decided on. In this case, adding 2 to the 38 would make 40, which is an easier number to work with.

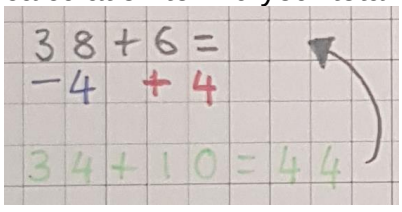
Step 2 – work out how much there is left to add. In this case, you have already added 2 so you need to take away 2 from the original amount so that the total added amount remains equal.

Step 3 – write your new calculation out and find your total.

This would look like:



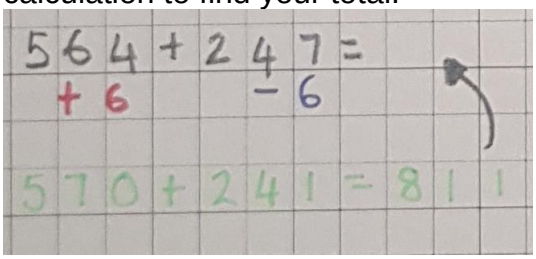
You may choose to make the other number easier. Such as:
Step 1 – add 4 to the 6 to make 10
Step 2 – take 4 away from the original adding amount (38 – 4)
Step 3 – write your new, easier calculation to find your total.



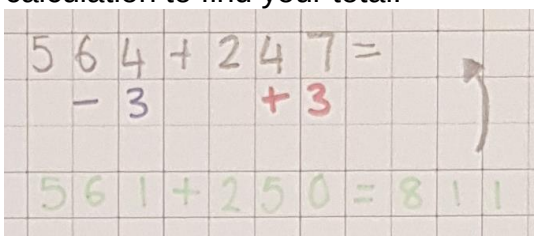
Example 3:
Use equal sum to work out the answer to 564 + 247

Remember to follow the same steps as example 1 to make a new calculation that is easier. However, as the numbers get bigger, you are going to have to decide whether you want to make the numbers easier by using a multiple of ten, hundred or thousand.

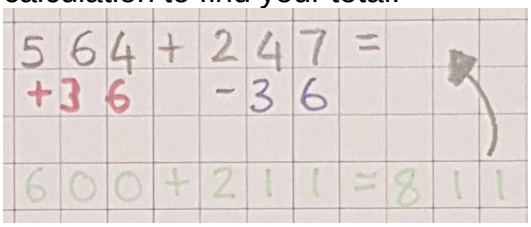
Option 1: multiple of ten
Step 1 – add 6 to 564 to make 570
Step 2 – take 6 away from the original adding amount (247 - 6)
Step 3 – write your new, easier calculation to find your total.



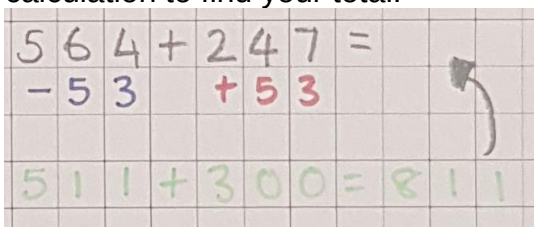
Option 2: multiple of ten
Step 1 – add 3 to 247 to make 250
Step 2 – take 3 away from the original adding amount (564 - 3)
Step 3 – write your new, easier calculation to find your total.



Option 3: multiple of a hundred
Step 1 – add 36 to 564 to make 600
Step 2 – take 36 away from the original adding amount (247 - 36)
Step 3 – write your new, easier calculation to find your total.



Option 4: multiple of a hundred
Step 1 – add 53 to 247 to make 300
Step 2 – take 53 away from the original adding amount (564 – 53)
Step 3 – write your new, easier calculation to find your total.



Independent Tasks

Please complete 1 or 2 challenges. If you are finding a challenge too tricky or too easy after 3 questions, you should switch challenges. After you have completed your challenge, check your answers against the mark scheme. If you got an answer wrong, look carefully and identify where you made a mistake.

Challenge 1

Show both ways of using equal sum to complete the four calculations below. Remember to follow the steps from the examples. You will be looking to make your numbers a multiple of ten.

Step 1 – look at the numbers and decide how you want to make the numbers easier. Then, make the change you decided on.

Step 2 – work out how much left there is to add. To do this, you will need to take away from the other number what you have already added.

Step 3 – write your new calculation out and find your total.

1) 76 + 7
2) 34 + 8
3) 83 + 9
4) 48 + 5

Challenge 2

Use equal sum to complete the calculations below. Remember to follow the steps from the examples.

Step 1 – look at the numbers and decide how you want to make the numbers easier. Then, make the change you decided on.

Step 2 – work out how much left there is to add. To do this, you will need to take away from the other number what you have already added.

Step 3 – write your new calculation out and find your total.

For these questions, you will be finding both ways of using equal sum by changing one of the numbers each time to a multiple of ten.

1) 36 + 57
2) 58 + 75

For this question, you will be finding all four ways of using equal sum by changing one of the numbers to a multiple of ten OR a multiple of a hundred each time. (This is like example 3)

3) 126 + 389

Challenge 3

Use equal sum to complete the calculations below. Remember to follow the steps from the examples.

Step 1 – look at the numbers and decide how you want to make the numbers easier. Then, make the change you decided on.

Step 2 – work out how much left there is to add. To do this, you will need to take away from the other number what you have already added.

Step 3 – write your new calculation out and find your total.

For each of these questions, you will be finding all four ways of using equal sum by changing one of the numbers to a multiple of ten OR a multiple of a hundred each time. (This is like example 3)

1) 186 + 729
2) 588 + 274
3) 263 + 375

Challenge X

Always / Sometimes / Never - when using equal addition to solve a sum, you always take from the smaller number and give to the bigger number.

Review

Find the error in this attempt of using equal sum.

36 + 28 =

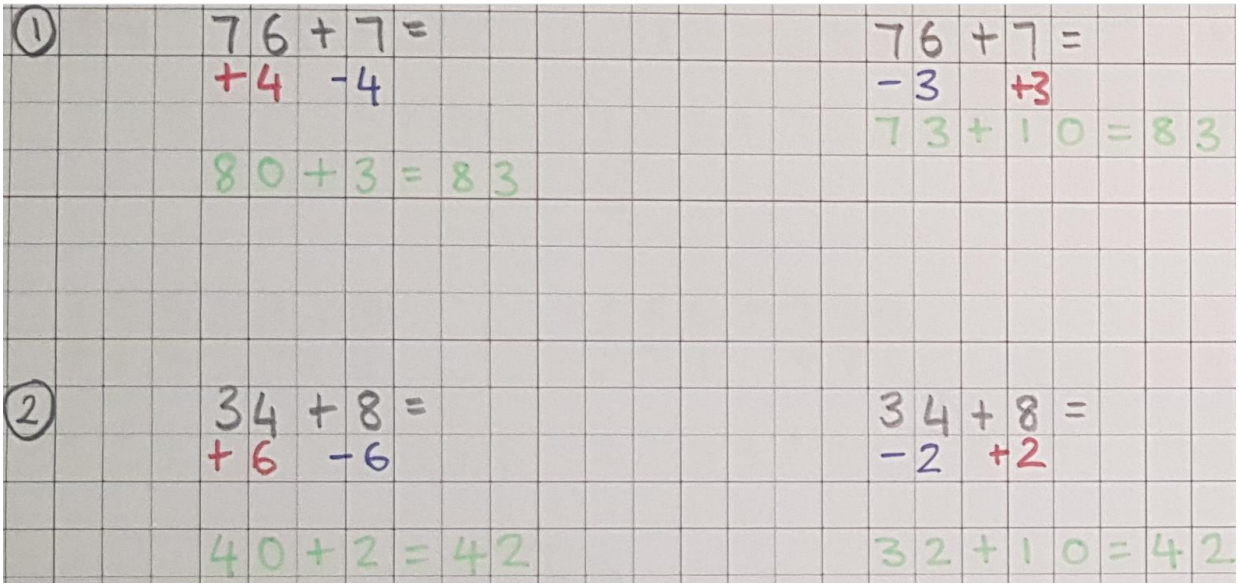
38 + 30 = 68

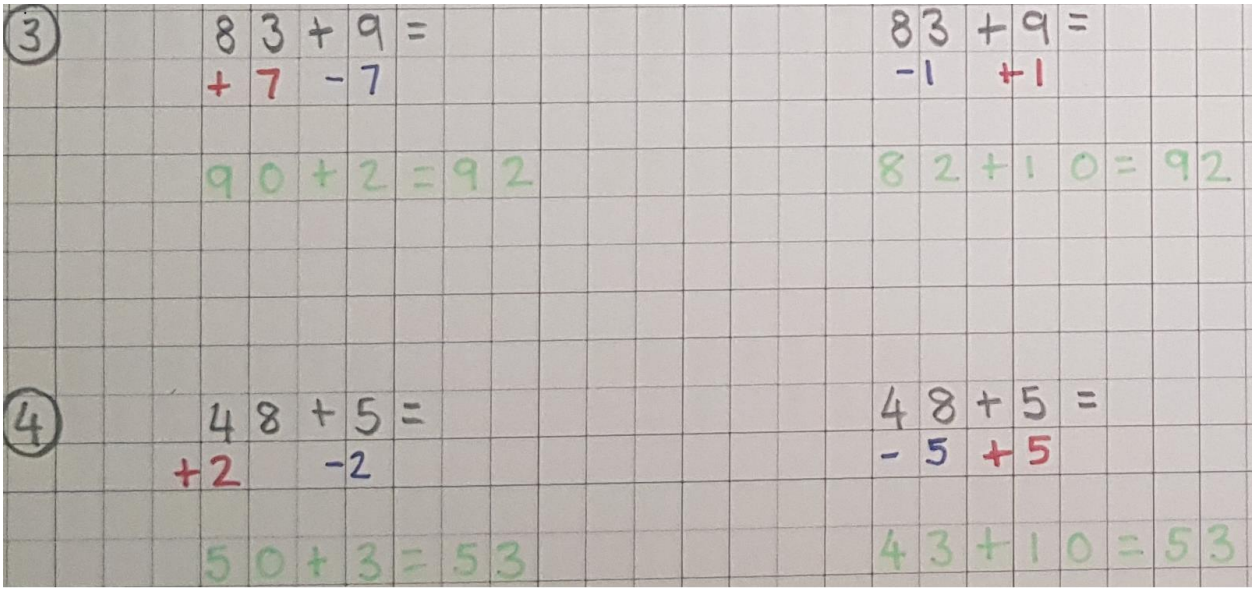
Mark Scheme – Lesson 3

Independent Tasks

Challenge 1

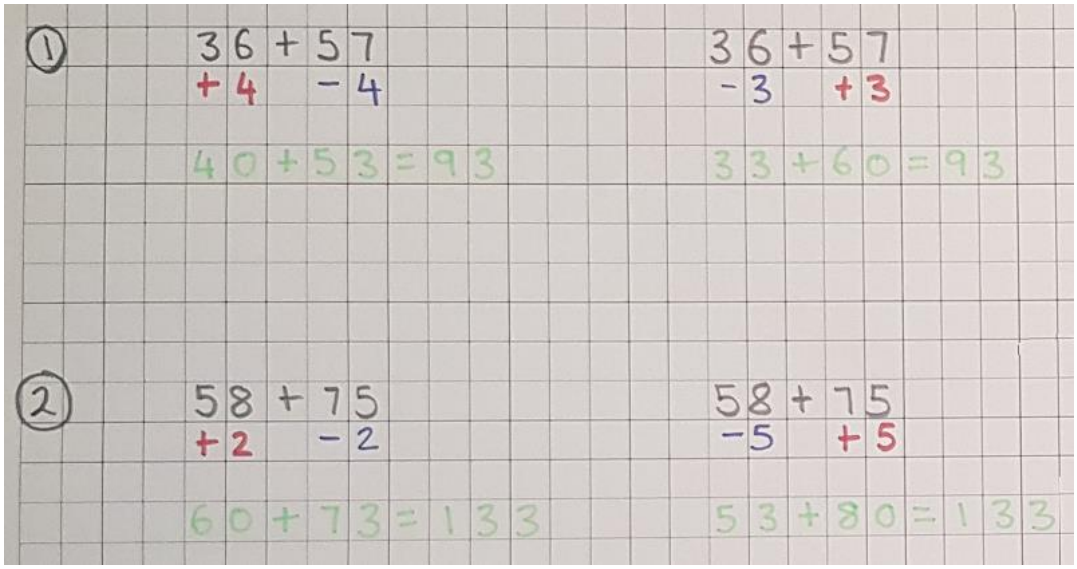
1) 83
2) 42
3) 92
4) 53

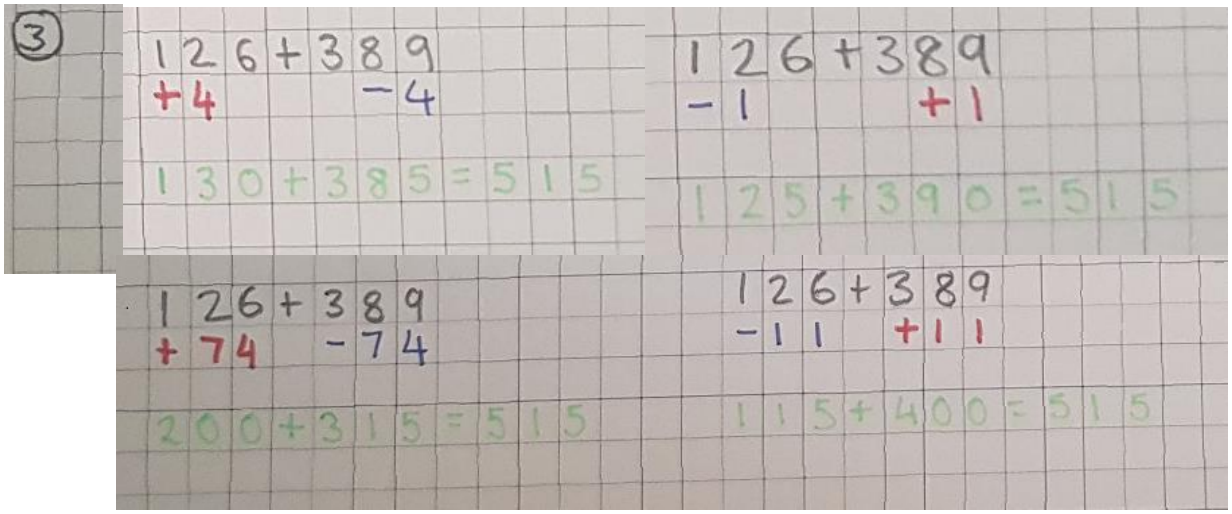




Challenge 2

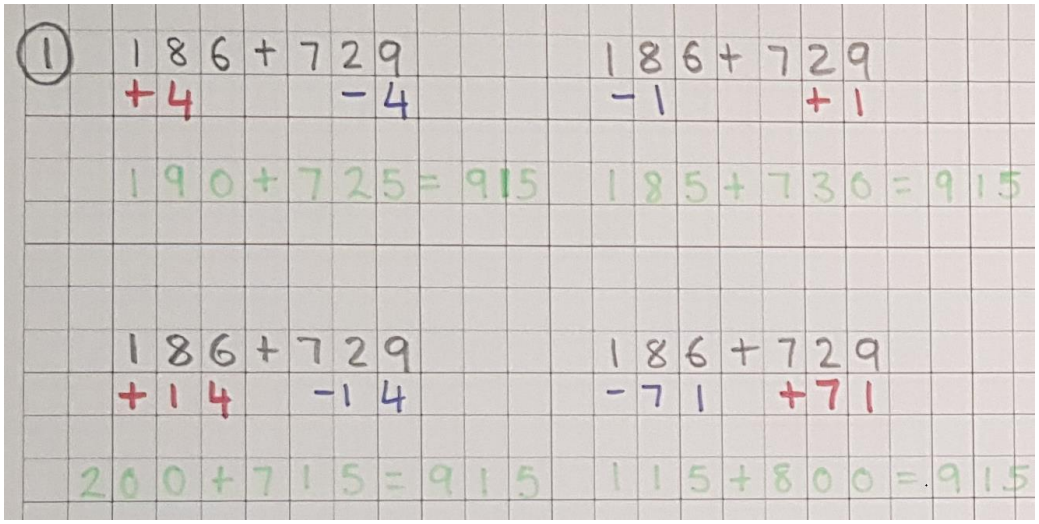
1) 93
2) 133
3) 515

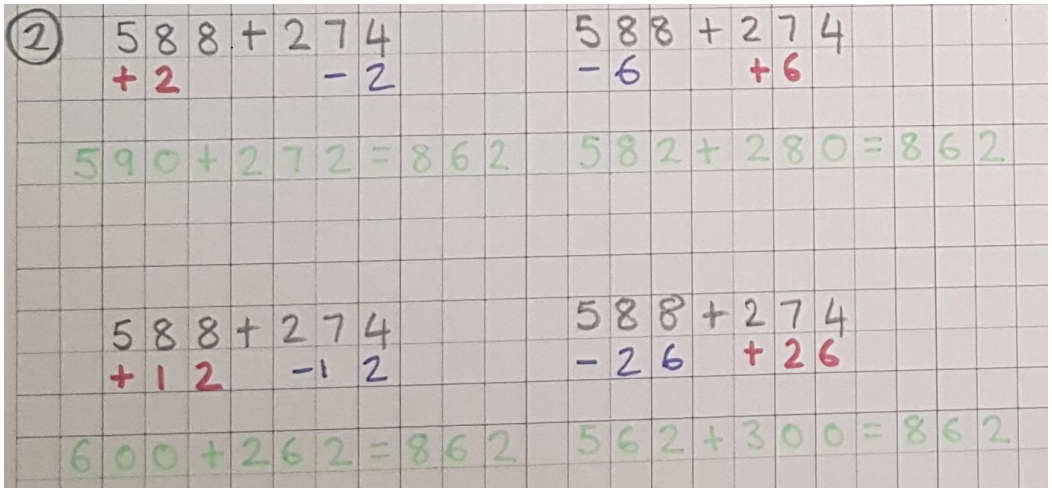


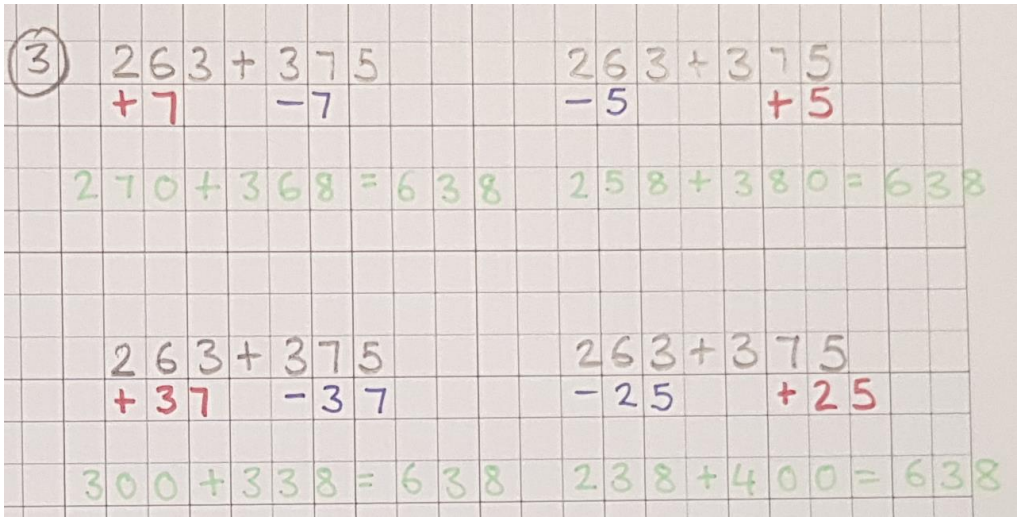


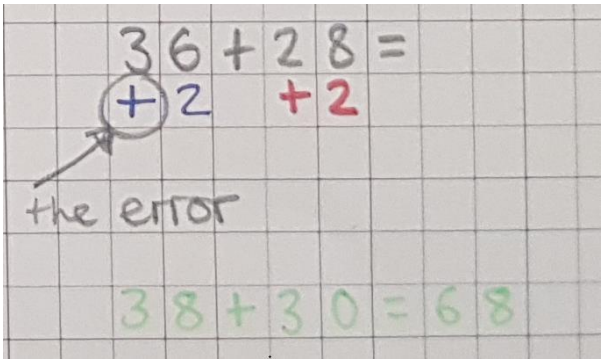
Challenge 3

1) 915
2) 862
3) 638







Challenge X
Sometimes (example 3 proves this)
Review
They didn't keep the sum equal. They added two extra.   

Lesson 4		
Learning Intention: WALT: represent addition problems using a bar model	Key Vocabulary:	What you will need: A computer, tablet or phone for the starter Maths book Pencil and ruler Video: Year 4 Maths - Week 3 - lesson 4

Starter

Log into Times Tables Rock Stars. If a gig is available, have a go. If not, try challenging a friend to a rock slam.

Main Teaching

Today, you are going to be applying a range of methods we have looked at to solve addition problems. You will also be applying some of your own methods in order to solves them. To help you visualise the question being asked, you are going to be drawing a bar model that matches your calculation.

Here is a reminder of what a bar model may look like for an addition calculation.

X + Y = ?

GREEN – the total
YELLOW and RED – the amounts being added

Sometimes, your bar model for addition may look similar to this:

X + Y + Z = ?

GREEN – the total
YELLOW, RED and BLUE – the amounts being added

(You may even have more than three amounts to add).

We are going to focus on extracting an addition calculation from a worded problem, drawing your matching bar model and then solving the calculation. The method you use to solve the calculation will be up to you.

Top tip – when drawing your bar model, try to make the size of each section relative to the amount going in it.

Example 1:

Wendy went to McDonald's to treat her friends to lunch. Her meal came to £14 and her friends' meals came to £28. How much did she pay altogether?

We first have to draw our bar model. We will always need a total bar and then we will need to work out how many bars make up our total. In this question, there are two amounts which make our total so our bar model would look like this:

We then need to figure out if we know the total and what the amounts are that we are adding. Then, put this information into our bar model. It would now look like this:

The calculation that would match this bar model is 14 + 28 = ?

Now you can see it visually and have the calculation, you can pick a method to solve the problem. At this stage, you are likely to pick from regrouping or equal sum. If you want to pick the formal method, you may. However, we are going to revisit that in coming sessions.

14 + 28 = 42

You can now put that into your bar model as your total. It will look like this:

Lastly, you need to answer all worded problems with a sentence. Your answer to this would be one similar to:

Altogether, Wendy spent £42 at McDonald's.

Example 2:

Miss Baker was making a cake. She needed 560g of butter for the cake mix and a further 376g for the butter icing. What was the total amount of butter she needed?

We first have to draw our bar model. We will always need a total bar and then we will need to work out how many bars make up our total. In this question, there are two amounts which make our total so our bar model would look like this:

We then need to figure out if we know the total and what the amounts are that we are adding. Then, put this information into our bar model. It would now look like this:

The calculation that would match this bar model is 376 + 560 = ?

Now you can see it visually and have the calculation, you can pick a method to solve the problem. At this stage, you are likely to pick from regrouping or equal sum. If you want to pick the formal method, you may. However, we are going to revisit that in coming sessions.

For this, I can spot a multiple of 10 so 'think one hundred' and regrouping may help!

376 + 560 = 936

You can now put that into your bar model as your total. It will look like this:

Lastly, you need to answer all worded problems with a sentence. Your answer to this would be one similar to:

Miss Baker needed a total of 936g of butter to bake her cake.

Example 3:

Three friends are going on holiday to a 5 star hotel in Spain. After reading all 134 reviews, they knew they had picked the right place to go. One friend paid £780 for a standard room, another paid £1,200 for a deluxe room and the third friend paid £1,569 for a suite. What was the sum of all the rooms?

We first have to draw our bar model. We will always need a total bar and then we will need to work out how many bars make up our total. In this question, there are three amounts which make our total so our bar model would look like the one below. Be careful though as there are other amounts in the question to trick you so make sure you only pick the relevant information.

We then need to figure out if we know the total and what the amounts are that we are adding. Then, put this information into our bar model. It would now look like this:

The calculation that would match this bar model is 1,569 + 780 + 1,200 = ?

Now you can see it visually and have the calculation, you can pick a method to solve the problem. At this stage, you are likely to pick from regrouping or equal sum. If you want to pick the formal method, you may. However, we are going to revisit that in coming sessions.

For this, I can spot two multiples that are easier to work with, 780 + 1,200. I would add these first and then my final amount.

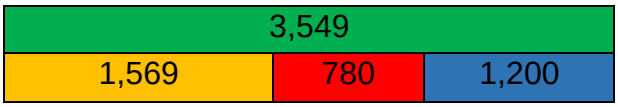
1,200 + 780 = 1,980

1,980 + 1,569 = ?

For the second calculation, I would be ‘thinking 1000’. 1,980 only needs 20 more. I would borrow that from 1,569 to make:

2,000 + 1,549 = 3,549

You can now put that into your bar model as your total. It will look like this:



Lastly, you need to answer all worded problems with a sentence. Your answer to this would be one similar to:

The friends spent a total of £3,549 on the hotel rooms.

Independent Tasks

Please complete 1 or 2 challenges. If you are finding a challenge too tricky or too easy after 3 questions, you should switch challenges. After you have completed your challenge, check your answers against the mark scheme. If you got an answer wrong, look carefully and identify where you made a mistake.

Challenge 1

Answer the 8 questions below, completing a bar model, a number sentence and a full, worded sentence answer for each.

1. I went to a sweet shop and bought a bag for 35p and another for 42p. How much did it come to?
2. I have 52 red books and 89 green books. How many books do I have?
3. In a small school, there are 158 girls and 60 boys. How many children are there in total?
4. As a teacher, I buy 91 pens and 99 pencils a year. How many pens and pencils do I buy?
5. In Year 3, there were 29 children and in Year 4, there were 37 children. How many children were there in total?
6. In a car park, there are 88 red cars and 125 blue ones. How many cars are there?
7. 158 children are watching a football match. 27 more children come to watch. How many are now watching the match?
8. If we have 10 tennis balls, 68 footballs and 15 rugby balls, how many balls do we have?

Challenge 2

Answer the 8 questions below, completing a bar model, a number sentence and a full sentence answer for each.

1. I went to a sweet shop and bought a bag for 78p and another for 63p. How much did it come to?
2. I have 152 red books and 389 green books. How many books do I have?
3. In a small school, there are 158 girls and 240 boys. How many children are there in total?
4. As a teacher, I buy 60 rulers, 191 pens and 99 pencils a year. How many items do I buy altogether?
5. In Year 3, there were 29 children and in Year 4, there were 37 children but Year 3 had 7 new students join later in the year. How many children were there in total?
6. In a car park, there are 162 red cars and 298 blue ones. How many cars are there?
7. 158 children are watching a football match. 175 more children come to watch. How many are now watching the match?
8. If we have 70 tennis balls, 68 footballs and 45 rugby balls, how many balls do we have?

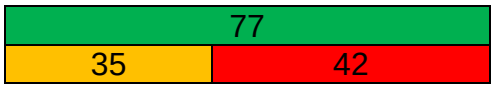
Challenge 3
Answer the 8 questions below, completing a bar model, a number sentence and a full sentence answer for each. 1. I went to a sweet shop and bought a bag for 78p, another for 63p and a chocolate bar for 40p. How much did it come to? 2. I have 552 red books and 389 green books. How many books do I have? 3. In a small school, there are 178 girls, 240 boys and 32 teachers. How many people are there in total? 4. As a teacher, I buy 60 rulers, 191 pens and 370 pencils a year. How many items do I buy altogether? 5. In Year 3, there were 39 children and in Year 4, there were 37 children but Year 3 had 7 new students join later in the year. How many children were there in total? 6. In a car park, there are 847 red cars and 298 blue ones. How many cars are there? 7. 1,634 people are watching a football match. 1,870 more come to watch. How many are now watching the match? 8. If we have 568 tennis balls, 650 footballs and 1,055 rugby balls, how many balls do we have?
Challenge X
Complete a bar model, number sentence and worded sentence. I bought my mum three gifts for her birthday. The t-shirt cost me £7.90, the perfume cost me £42.50 and the make-up cost me £4.89. How much did I spend?
Review
I walked from home to school, which took me 14 minutes. After school, I went to town for dinner. It took me 38 minutes to walk to town. I then walked home, which took me 26 minutes. How many minutes did I spend walking?

Mark Scheme – Lesson 4

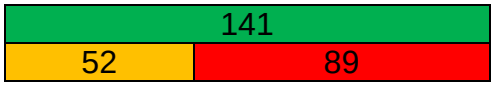
Independent Tasks

Challenge 1

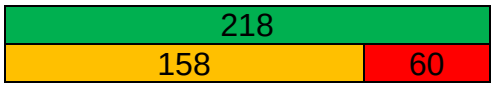
1) 35 + 42 = 77
   Your shop came to 77p.



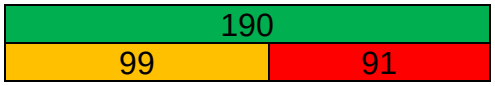
2) 52 + 89 = 141
   You have 141 books.



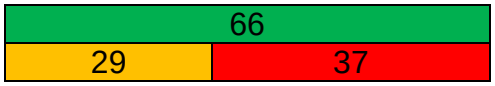
3) 158 + 60 = 218
   There is a total of 218 children.



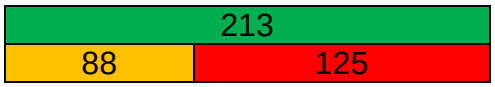
4) 91 + 99 = 190
   You buy a total of 190 pens and pencils.



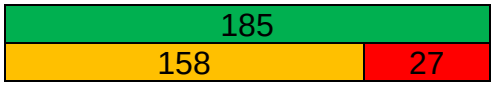
5) 29 + 37 = 66
   There were 66 children in total.



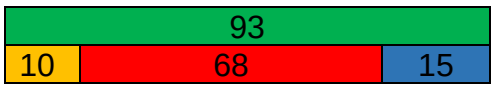
6) 88 + 125 = 213
   There are 213 cars in total.



7) 158 + 27 = 185
   There were 185 children watching the match.

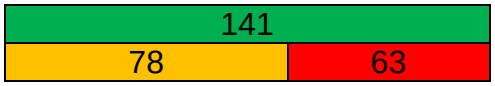


8) 10 + 68 + 15 = 93
   There are 93 balls in total.

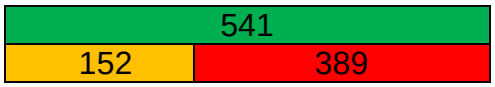


Challenge 2

1) 78 + 63 =141
   Your shop came to 141p. (or £1.41)



2) 152 + 389 = 541
   You have 541 books.



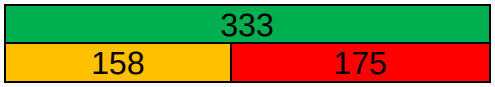
3) 158 + 240 = 398
   There is a total of 398 children.

4) 60 + 191 + 99 = 350
   You buy a total of 350 items.

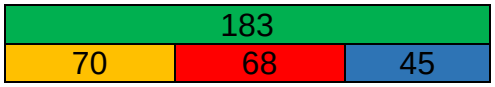
5) 29 + 37 + 7= 73
   There were 73 children in total.

6) 162 + 298 = 460
   There are 460 cars in total.

7) 158+ 175 = 333
   There were 333 children watching the match.

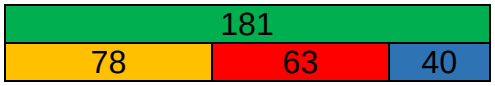


8) 70 + 68 + 45 = 183
   There are 183 balls in total.

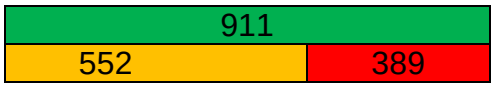


Challenge 3

1) 78 + 63 + 40 =181
   Your shop came to 181p. (or £1.81)

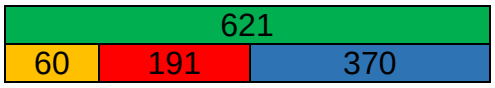


2) 552 + 389 = 911
   You have 911 books.

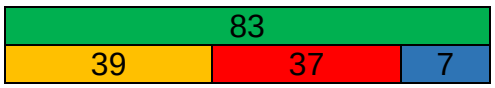


3) 178 + 240 + 32 = 450
   There is a total of 450 people.

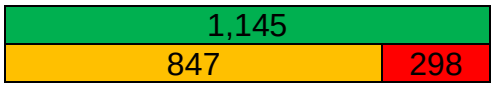
4) 60 + 191 + 370 = 621
   You buy a total of 621 items.



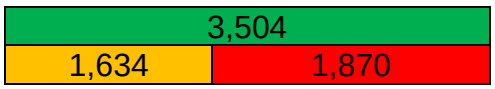
5) 39 + 37 + 7= 83
   There were 83 children in total.



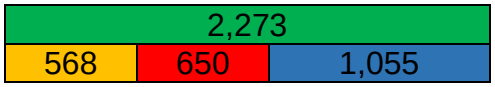
6) 847 + 298 = 1,145
   There are 1,145 cars in total.



7) 1,634 + 1,870 = 3,504
   There were 3,504 people watching the match.



8) 568 + 650 + 1,055 = 2,273
   There are 2,273 balls in total.



Challenge X

7.90 + 42.50 + 4.89 = 55.29
Her gifts cost you £55.29.

Review

14 + 38 + 26 = 78
You spent a total of 78 minutes walking.