Year 4 maths week 2

5 days of problem solving	Day 1 Activity	Day 2 Activity	Day 3 Activity	Day 4 Activity	Day 5 Activity
Factual fluency (to aid fluency)	https://www.topmarks.co.uk/maths-games/daily10 Daily 10-level 4-multiplication-mixed tables up to x12	https://www.topmarks.co.uk/maths-games/daily10 Daily 10-Level 4- multiplication-mixed tables up to x12	https://www.topmarks.co.uk/maths-games/daily10 Daily 10-Level 4- multiplication-mixed tables up to x12	https://www.topmarks.co.uk/maths-games/daily10 Daily 10-Level 4- multiplication-mixed tables up to x12	https://www.topmarks.co.uk/maths-games/daily10 Daily 10-Level 4- multiplication-mixed tables up to x12
Problem/activity of the day	**1, 2, 3, 4, 5, 6, 7, 8, 9** Draw a grid of 4 boxes. Choose four digits from the digits above and put one digit in each box to give you four 2-digit numbers (example below) **Explore:** Find four different digits that give you four 2-digit numbers which add to a total of 100.	Roll a dice 8 times (or use digits **1, 2, 2, 3, 4, 5, 6, 6**) to make two 4-digit numbers. Create a subtraction calculation. Put the highest digit at the start of the first number in your calculation. Use the formal written method to solve (layout below). **Complete 10** different formal subtraction calculations.	Use the formal method (layout below) to complete the following calculations: 1. 213 x 3 = 2. 325 x 3 = 3. 267 x 2 = 4. 346 x 5 = Finished? Well done! Write an **explanation** of how you solved question 1 and question 4. What is different in how you solved them?	My friend says she used this fact: 63 ÷ 9 = __ to work out these facts: 126 ÷ 9 = ___ 252 ÷ 7 = ___ **Complete** the calculations and **explain** how these facts could have been linked by my friend.	**How close can you get to 4500?** __ __ __ **x 7** Using the digits 3, 4 and 6 in the calculation above how close can you get to 4500? **Explore**: What is the largest product? What is the smallest product?
Resources you will need	Paper and pencils Draw a 2 x 2 grid (below)	Dice (or digits above) Paper and pencil	Paper and pencil	Paper and pencil	Paper and pencil Formal layout below
Tips, clues or methods to help	Go through the digits methodically. Need help with calculation? Check: https://www.belleville-school.org.uk/our-learning/calculation-videos	Draw a place value chart to keep the digits in place. Need help with calculation? Check: https://www.belleville-school.org.uk/our-learning/calculation-videos	Need help with calculation? Check: https://www.belleville-school.org.uk/our-learning/calculation-videos	Need help with calculation? Check: https://www.belleville-school.org.uk/our-learning/calculation-videos	Need help with calculation? Check: https://www.belleville-school.org.uk/our-learning/calculation-videos
Want to check?	Use the inverse to check.	Use the inverse to check.	Use the inverse to check.	Use the inverse to check.	Use the inverse to check.
Theme	4 operations	4 operations	4 operations	4 operations	4 operations

See below for: 2 x 2 grid example, formal subtraction layout example, formal multiplication layout example

Additional activities below: problem solving using the 4 operations

Day 1: A 2 x 2 grid looks like this:

5	2
1	9

52 along the top row
19 along the bottom row

51 down the left-hand column
29 down the right-hand column

In this case their sum is 151

Day 2: Subtraction Dice Challenge

I rolled a dice 8 times. I generated these numbers: 2, 3, 6, 6, 2, 5, 1, 4.
With these digits, I made this subtraction calculation:

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

Day 3 and 5: formal multiplication is laid out like this:

	H	T	O
	2	3	2
x			4

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Additional activities:

Identify the missing numbers in these bar models. They are not drawn to scale.

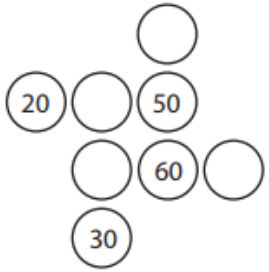
1000		
	353	354

2000		
493		754

Select your own numbers to make this bar model correct.

5000		

Complete this diagram so that the three numbers in each row and column add up to 140.



Now create your own diagram with a total of 250.

What do you notice about the following calculations? Can you use one calculation to work out the answer to other calculations?

$2 \times 3 =$	$6 \times 7 =$	$9 \times 8 =$
$2 \times 30 =$	$6 \times 70 =$	$9 \times 80 =$
$2 \times 300 =$	$6 \times 700 =$	$9 \times 800 =$
$20 \times 3 =$	$60 \times 7 =$	$90 \times 8 =$
$200 \times 3 =$	$600 \times 7 =$	$900 \times 8 =$

Place one of these symbols in the circle to make the number sentence correct:
>, < or =.

Explain your reasoning.

8×50	○	50×8
8×50	○	80×5
300×3	○	5×200

Tom ate 9 grapes at the picnic. Sam ate 3 times as many grapes as Tom.
How many grapes did they eat altogether?

The bar model is a useful scaffold to develop fluency in this type of question.

Sally has 9 times as many football cards as Sam. Together they have 150 cards.
How many more cards does Sally have than Sam?

The bar model is a useful scaffold to develop fluency in this type of question.