# Year 5 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 5-multiplication-mixed tables up to x12** | https://www.topmarks.co.uk/maths-games/daily10 **Daily 10-level 5-multiplication-mixed tables up to x12** | https://www.topmarks.co.uk/maths-games/daily10 **Daily 10-level 5-multiplication-mixed tables up to x12** | https://www.arcademics.com/games/demolition **demolition division-range1 to 12-choose your game speed** | https://www.arcademics.com/games/demolition **demolition division-range1 to 12-choose your game speed** |
| **Problem/activity of the day** | Roll a dice 10 times (or use digits **1, 2, 3, 3, 4, 4, 5, 5, 6, 6**) to make two 5-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 12** different formal subtraction calculations. | Work out the following calculations: 8 ÷ 4 = 9 ÷ 4 = 10 ÷ 4 = Complete the problem: A 50cm length of wood is cut into 4cm pieces. How many 4cm pieces are cut and how much wood is left over? Fill in the blanks to represent the problem as division: ☐ ÷ ☐ = ☐ remainder ☐ Fill in the blanks to represent the problem as multiplication: ☐ × ☐ + ☐ = 50 (enlarged version below) **Explain** what you are dividing and multiplying in these calculations. How are multiplication and division connected in this problem? | Use the formal method (layout below) to complete the following calculations: 1. 213 x 3 = 2. 34 x 21 = 3. 324 x 12 = 4. 432 x 23 = <u>Finished? Well done!</u> Write an **explanation** for how you solved question 1 and question 4. What is different in how you solved them? | Use a **bar model** diagram to show how to solve this problem: Sam and Tom have **£46.80** between them. If Sam has **£6.20 more** than Tom, how much does Tom have? How much does Sam have? **Complete** the problem and **explain** how your bar model shows your thinking. | 12 can be factored as 1 x 12, 2 × 6, or 3 × 4; therefore, the factors of 12 are 1, 2, 3, 4, 6 and 12. 12 has 6 factors. My friend says, 'Factors come in pairs, so all numbers have an even number of factors!' Do you agree? **Explain** your thinking and use **several** examples to prove your point. |
| **Resources you will need** | Dice (or digits above) Paper and pencil | Paper and pencils | Paper and pencil | Paper and pencil | Paper and pencil |
| **Tips, clues or methods to help** | 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 | Use your multiplication tables knowledge. 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 | Start with 1x __ (the number you chose), i.e. 6 = 1 x 6. Even numbers end with 0, 2, 4, 6 or 8. |
| **Want to check?** | Use the inverse to check. | Use the inverse to check. | Use the inverse to check. | Use the inverse to check. | Use your times tables. |
| **Theme** | 4 operations | 4 operations | 4 operations | 4 operations | 4 operations |

<u>**See below for:**</u> formal subtraction layout example, formal multiplication layout example
<u>**Additional activities below:**</u> problem solving using the 4 operations

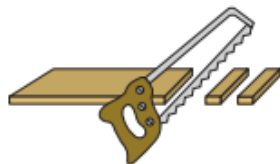**Quality First** Education Trust

## Day 1: Subtraction Dice Challenge

I rolled a dice 10 times. I generated these numbers: 2, 3, 6, 6, 2, 5, 1, 4 1, 1.
With these digits, I made this subtraction calculation:

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

$$\begin{array}{ccccc} \text{TTh} & \text{Th} & \text{H} & \text{T} & \text{O} \\ 6 & 2 & 6 & 2 & 1 \\ - & 5 & 1 & 3 & 4 & 1 \\ \hline \\ \hline \end{array}$$

## Day 2: Enlarged word problem:

A 50 cm length of wood is cut into 4 cm pieces.

How many 4 cm pieces are cut and how much wood is left over?

Fill in the blanks to represent the problem as division:

☐ ÷ ☐ = ☐ remainder ☐

Fill in the blanks to represent the problem as multiplication:

☐ × ☐ + ☐ = 50

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## Day 3: formal multiplication is laid out like this:

|   | H | T | O |
|---|---|---|---|
|   | 2 | 3 | 2 |
| X |   | 2 | 4 |
|   |   |   |   |
|   |   |   |   |

## Additional activities:

Set out and solve these calculations using a column method.

$3254 + \boxed{\phantom{000}} = 7999$

$2431 = \boxed{\phantom{000}} - 3456$

$6373 - \boxed{\phantom{000}} = 3581$
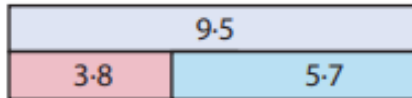
$6719 = \boxed{\phantom{000}} - 4562$

True or False?

- $3999 - 2999 = 4000 - 3000$
- $3999 - 2999 = 3000 - 2000$
- $2741 - 1263 = 2742 - 1264$
- $2741 + 1263 = 2742 + 1264$
- $2741 - 1263 = 2731 - 1253$
- $2741 - 1263 = 2742 - 1252$

Explain your reasoning.

Using this number statement, $5222 - 3111 = 5223 - 3112$ write three more pairs of equivalent calculations.

Write four number facts that this bar diagram shows.

| 9·5 | |
|:---:|:---:|
| 3·8 | 5·7 |

☐ + ☐ = ☐

☐ + ☐ = ☐

☐ − ☐ = ☐

☐ − ☐ = ☐

The table shows the cost of train tickets from different cities.

What is the total cost for a return journey to York for one adult and two children?

How much more does it cost for two adults to make a single journey to Hull than to Leeds?

| | | York | Hull | Leeds |
|---|---|---|---|---|
| Adult | Single | £13·50 | £16·60 | £11·00 |
| | Return | £24·50 | £30·00 | £20·00 |
| Child | Single | £9·75 | £11·00 | £8·00 |
| | Return | £15·00 | £18·50 | £13·50 |