Wednesday 17ᵗʰ June   Y4 Maths

In Maths today, we are still thinking about choosing the most **efficient method** when we are subtracting.

We need to ask ourselves whether we can **subtract mentally** or whether we need to use a **column method.**

We need to think about whether it would help to **partition** the numbers or whether drawing a **bar model** or a **part whole model** to represent the subtraction would help.
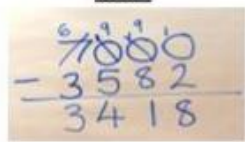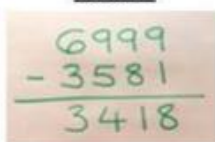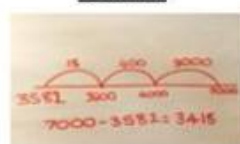
It helps to **round** numbers before carrying out a calculation to get a sense of the size of the answer. For example, 4786 – 2135 is close to 5000 – 2000, so the answer will be around 3000.

Looking at the numbers in a calculation and their relationship to each other can help make calculating easier. For example, 3012 – 2996. Noticing that the numbers are close to each other might mean this is more easily calculated by thinking about subtraction as **difference** and **counting on** from the smaller number.

Try the questions below and there is also a new challenge on Sumdog for you.

Varied Fluency

1 Sam, Lucas and Jemima are solving the calculation
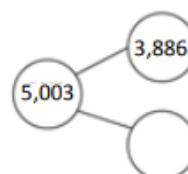7000 – 3582
Here are their methods.

Sam	Lucas	Jemima

Who is correct? Can you explain how each child has reached their answer? Whose method is the most efficient?
Use the different methods to solve 4000 – 2831

2 Find the missing numbers.
What methods did you use?

3465
2980

Reasoning and Problem

Jamal has £1000.

He buys a scooter for £345 and a skateboard for £110.

How much money does he have left?

Show 3 different methods of finding the answer.

Explain how you completed each one.

Which is the most effective method?

Look at each pair of calculations below. Which one out of each pair of calculations has the same difference as 2450 – 1830?

2,451 – 1,831 =   2,451 – 1,829 =

2,500 – 1,880 =   2,500 – 1,780 =

2,449 – 1,829 =   2,449 – 1,831 =

When is it useful to use difference to solve subtractions?

Hard and easy questions

Which questions are easy / hard?

13323 - 70 =

12893 + 300 =

19354 - 500 =

19954 + 100 =

Explain why you think the hard questions are hard?

Convince me

☐ - 666 = 8 ☐ 5

What is the largest possible number that will go in the rectangular box?

What is the smallest?

Convince me

Possibilities

Adult tickets cost £8 and Children's tickets cost £4. How many adult and children's tickets could I buy for £100 exactly?

Can you find more than one way of doing this?

Efficient Subtraction

Reasoning and Problem Solving

Jamal has £1000.

He buys a scooter for £345 and a skateboard for £110.

How much money does he have left?

Show 3 different methods of finding the answer.

Explain how you completed each one.

Which is the most effective method?

```
    345            9 9
  + 110         1 0 0 0 10
  -----        -    4 5 5
    455          -------
                   5 4 5
He has £545 left
```

```
    345          9 9 9
  + 110        1 0 0 0
  -----        -  4 5 4
    455         -------
                  5 4 5
He has £545 left
```

Above I have used column method, taken one off each number to find the difference and found the difference by counting on. Below I used counting on on the numberline.

```
      +110    +45   +500
   345    355    500    545    1000
                   545
```

Look at each pair of calculations below. Which one out of each pair of calculations has the same difference as 2450 – 1830?

2,451 – 1,831 =   2,451 – 1,829 =

2,500 – 1,880 =   2,500 – 1,780 =

2,449 – 1,829 =   2,449 – 1,831 =

When is it useful to use difference to solve subtractions?

2,451 – 1,831
Added one to each number

2,500 – 1,880
Added 50 to both numbers

2,449 – 1,829
Subtracted one from each number

Difference is 620