

'I WILL SHINE'

# Addition and subtraction 1

## Prior learning

Let's activate my long-term memory!  
In Y4, I learnt to...

- add and subtract numbers with up to 4 digits using the formal column method
- estimate and use the inverse operations to check answers
- solve addition and subtraction two-step problems, deciding which operations and methods to use and why

## Key vocabulary

What words will I use in this unit?  
Do I recognise any already?

add      more      increase   total plus  
sum   subtract   take away   find the  
difference   minus   inverse   estimate

## Current learning

In this unit, I will learn how to...

- Adding whole numbers with more than 4 digits (column method)
- Subtract whole numbers with more than 4 digits (column method)
- Round to estimate and approximate
- Inverse operations (addition and subtraction)
- Multi-step addition and subtraction problems

## Tools and drawings

Which tools and drawing might I use to support my learning?

PV grid      Dienes  
counters      bar model  
part-whole (cherry diagram)

## Knowledge Organiser

### Column Method

Starting with the ones, add each column in turn. Regroup tens, hundreds, thousands, ten thousands and/or as required.

$$\begin{array}{r} 45864 \\ +23497 \\ \hline 69361 \\ \underline{111} \end{array}$$

### Column Method

Starting with the ones, subtract each column in turn. Exchange tens, hundreds, thousands and/or ten thousands as required.

$$\begin{array}{r} \phantom{6} \phantom{13} \phantom{1} \\ 35742 \\ - 3476 \\ \hline 32266 \end{array}$$

### Using a Bar Model

The sum of two numbers is 25 567.  
The difference is 1875.



### Inverse Operations

Use the inverse to check:

53 476	To check $53\,476 - 32\,732 = 20\,744$
32 732	use $32\,732 + 20\,744 = 53\,476$

Start with a number, subtract 409 and double. I end with 6264.  
To find the starting number use the inverse: halve, then add 409. Half of 6264 = 3132.  $3132 + 409 = 3541$ . The starting number was 3541.

### Estimate and Approximate

#### Rounding to Estimate

$$41\,635 + 7386 = 49\,021$$

Round to ten:

$$41\,630 + 7380 = 49\,010$$

$$41\,630 + 7390 = 49\,020$$

$$41\,640 + 7390 = 49\,030$$

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