

National Curriculum Link –

- Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
- Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- Estimate and use inverse operations to check answers to a calculation.
- Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy (rounding).

In this unit we will ...

- Add and subtract 1s, 10s, 100s and 1,000s
- Add and subtract two 4-digit numbers using the column method
- Learn how to find and use equivalent difference, and other mental methods
- Estimate answers to additions and subtractions
- Learn how to check strategies and apply our knowledge.

Add 4-digit numbers

No exchange

$$\begin{array}{r} 5162 \\ +3427 \\ \hline 8589 \end{array}$$

Starting with the ones, add each column in turn.

One exchange

$$\begin{array}{r} 5162 \\ +3497 \\ \hline 8659 \\ 1 \end{array}$$

Starting with the ones, add each column in turn. When adding 6 tens + 9 tens = 15 tens = 1 hundred + 5 tens
Place 1 hundred under the hundreds answer and 5 tens in the answer.

Multiple exchanges

$$\begin{array}{r} 5864 \\ +3497 \\ \hline 9361 \\ 111 \end{array}$$

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

Subtract 4-digit numbers

No exchange

$$\begin{array}{r} 5789 \\ -3421 \\ \hline 2368 \end{array}$$

Starting with the ones, subtract each column in turn.

One exchange

$$\begin{array}{r} 615749 \\ -3471 \\ \hline 2278 \end{array}$$

Starting with the ones, subtract each column in turn. When subtracting 4 tens - 7 tens, exchange 1 hundred to make:
14 tens - 7 tens = 7 tens

Multiple exchanges

$$\begin{array}{r} 61315742 \\ -3476 \\ \hline 2266 \end{array}$$

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

Year 4 – Addition and Subtraction

How does this unit build on prior learning?

This unit builds on children's Year 3 work on adding and subtracting with 3-digit numbers. It further develops their estimation and answer-checking strategies and their problem-solving skills. This unit provides essential preparation for beginning to add and subtract numbers with more than four digits.

Before they start this unit, it is expected that children:

- have a firm understanding of place value (up to 4-digit numbers)
- know a range of mental addition and subtraction strategies
- can apply these strategies to a range of contexts including measure.

Key Vocabulary

addition	combining at least 2 parts to make a whole
subtraction	To find the difference between 2 amounts
total	It is the result when you add numbers together
more than	It shows how many more one quantity is to another.
less than	It shows how many less one quantity is to another.
difference	A comparison between two quantities
exchange	Process of converting one value into an equivalent value eg: one hundred can be exchanged to ten tens.

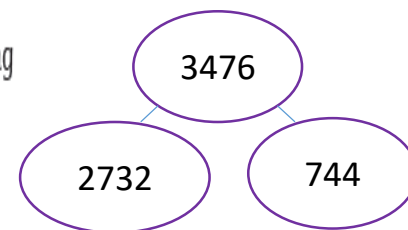
Using Inverse



$3476 - 744 = 2732$ can be checked using

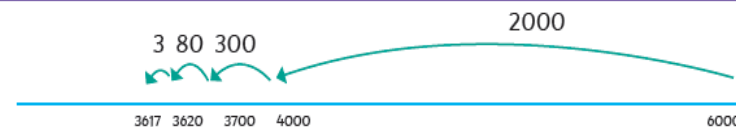
$$2732 + 744 = 3476$$

This part whole shows the inverse calculations using these three numbers.



Efficient subtraction

Calculate $6000 - 3617 = 2383$



Maths at Alice Ingham

