



# KNOWLEDGE ORGANISER: Maths- Addition and Subtraction Year 4 Block 2

## Key Vocabulary

- Add
- Total
- Plus
- Sum
- More
- Altogether
- Difference
- Subtract
- Less
- Minus
- Take Away
- Mentally, Orally
- Column Addition
- Column Subtraction
- Exchange
- Estimate
- Inverse Operation
- Solve Problems
- Number Facts

## 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

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

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

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

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

$$\begin{array}{r} 61 \\ 5749 \\ - 3471 \\ \hline 2278 \end{array}$$

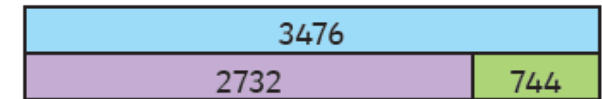
Starting with the ones, subtract each column in turn. When subtracting 4 tens - 7 tens, exchange 1 hundred to make: 14 tens - 7 tens = 7 tens

Multiple exchanges

$$\begin{array}{r} 6131 \\ 5742 \\ - 3476 \\ \hline 2266 \end{array}$$

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

## Using Inverse



$3476 - 744 = 2732$  can be checked using  
 $2732 + 744 = 3476$

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



$1549 + 2688 = 4237$	$2688 + 1549 = 4237$
$4237 - 1549 = 2688$	$4237 - 2688 = 1549$

## Rounding

$1635 + 386 = 2021$

Round to the nearest ten

$1640 + 390 = 2030$

Round to the nearest hundred

$1600 + 400 = 2000$

Both give a reasonable estimate, but rounding the nearest ten is more accurate.

$9362 - 5729 = 3622$

Round to the nearest hundred

$9400 - 5700 = 3700$

Round to the nearest thousand

$9000 - 6000 = 3000$

Rounding to the nearest hundred is much more accurate in this case.

## Adding in a different order

$420 + 372 + 280 =$

Change to

$420 + 280 + 372 =$

$As\ 420 + 280 = 700$

(because  $42 + 28 = 70$ )

$420 + 280 + 372 = 700 + 372 = 1072$