Templars Primary School – Knowledge Organiser

Year 4 Addition and Subtraction

Key Vocabulary

add
total
plus
sum
more
altogether
difference
less
subtract
minus
take away
mentally
column addition
column subtraction
Inverse operation
exchange

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

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

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

$$\begin{array}{r} 5864 \\ +3497 \\ \hline 9361 \\ \scriptstyle 11\,1 \end{array}$$

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

$$\begin{array}{r} \scriptstyle 6\ 1 \\ 5\not{7}49 \\ -\ 3471 \\ \hline 2278 \end{array}$$

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

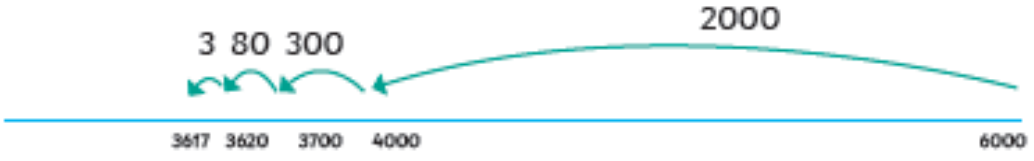
$$\begin{array}{r} \scriptstyle 6\ 13\ 1 \\ 5\not{7}42 \\ -\ 3476 \\ \hline 2266 \end{array}$$

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

Efficient Subtraction

Use mental methods to find the most **efficient** methods of subtraction

Calculate 6000 – 3617 = 2383



Add and subtract in 1's, 10's, 100's and 1000's

Here is the number 3124

Add 2 thousands = 5124

Add 5 hundreds = 5624

Subtract 2 tens = 5604

Add 5 ones = 5609

Here is the number 6708

Thousands	Hundreds	Tens	Ones
6	7	0	8

Add 3 thousands = 9708

Subtract 4 hundreds = 9308

Add 5 tens = 9358

Subtract 7 ones = 9351

Crossing ones, tens or hundreds

5392 + 4 tens = 5432 crossing tens

5126 – 600 = 4526 crossing hundreds

When crossing ones, tens or hundreds, more than one digit will change.

Estimate Answers

Use knowledge of rounding to **estimate answers** for calculations or word problems

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

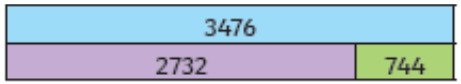
9000 – 6000 = 3000

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

Checking Strategies

Explore ways of **checking** to see if an answer is correct by using inverse operations

Using the 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

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